



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

JAN 15 2013

REPLY TO THE ATTENTION OF:  
WC-15J

**CERTIFIED MAIL 7009 1680 0000 7678 5204**  
**RETURN RECEIPT REQUESTED**

Ms. Star Fowler  
Illinois Environmental Protection Agency  
5415 N University Avenue  
Peoria, Illinois 61614

Subject: EPA Oversight Inspection Report

Dear Ms. Fowler:

Enclosed, please find a copy of the U.S. Environmental Protection Agency Oversight Inspection Report for the inspection conducted by Illinois Environmental Protection Agency (IEPA) at Hollis Shafer Swine Farm on April 16, 2012. The purpose of the EPA oversight inspection report is to evaluate the IEPA's inspection report from the inspection conducted on April 16, 2012 and subsequent findings at Hollis Shafer Swine Farm.

Should you find anything in the report that you disagree with, please provide a detailed response.

Thank you for your prompt attention to this matter. If you have any questions, please contact Joan Rogers of my staff at (312) 886-2785.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan J. Bahr", is written over a horizontal line.

Ryan J. Bahr, Chief, Section 2  
Water Enforcement and Compliance Assurance  
Branch

Enclosures

cc: Bud Bridgewater, IEPA

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**CWA OVERSIGHT INSPECTION REPORT  
ILLINOIS**

The purpose of this document is to provide an evaluation of an Animal Feeding Operation inspection conducted by the Illinois Environmental Protection Agency (IEPA). This evaluation is conducted via comparison to a similar inspection performed by the U.S. Environmental Protection Agency (EPA).

<b>Inspection facility</b>	Hollis Shafer Swine Farm 785 North Taylor Lane Astoria, Illinois 61501
<b>NPDES permit status</b>	No permit
<b>IEPA inspection date</b>	04/16/12
<b>EPA inspection date</b>	09/14/12

Hollis Shafer Swine Farm is a large swine farrow to wean facility located in Fulton County, Illinois. IEPA conducted an inspection at the site on April 16, 2012, and found compliance issues but no discharges of manure or process wastewater to surface waters (Attachment 1). On September 14, 2012, EPA conducted an inspection at the facility and also found the compliance issues but no discharges to surface waters. EPA also observed three additional compliance issues that were not observed by IEPA previously in the year but were probably present at the time.

Findings from the IEPA and EPA inspection are summarized below:

<b>Area of concern</b>	<b>Identified by IEPA April 16, 2012</b>
Both mortality compost units were in need of maintenance.	X
Debris entering the pits of the buildings was causing the manure collection system to become clogged and cause manure to be released through the clean-outs.	X
South side pump station was not working.	X
Facility allowed manure to discharge onto the ground around the pump station during the testing of the pump before pumping to the storage pond.	X
The Livestock Lagoon did not have a freeboard marker and the vegetation on the berms needed to be mowed.	X
Waste feed was being disposed of in the surrounding woods or ravines.	X
Debris was not disposed of properly.	X
There was no Certified Livestock Manager for the facility.	X

The Concrete Storage Pond has cracks in the concrete walls. Dirt was piled up on the outside of the walls to stop the flow of manure leakage.	
There are cracks in the concrete walls of the South Gestation Building where the pit fan housing was installed.	
Shower water from the employees' showers was piped to the manure storage system.	

The content of the inspection report is summarized below:

*General Information*

<b>Included in Report?</b>	<b>IEPA inspection April 16, 2012</b>
<b>Date and time of inspection</b>	Date only in the Report. Date and Time listed in the Inspection Checklist.
<b>Type and purpose of inspection</b>	Yes
<b>Facility information</b>	Yes
<b>NPDES or other ID number</b>	N/A Facility is not permitted, no other ID number available.
<b>Inspection participants listed</b>	Yes

*Facility Information*

<b>Included in Report?</b>	<b>IEPA inspection April 16, 2012</b>
<b>Facility description and areas evaluated</b>	Yes
<b>Description of NPDES regulated activities pertinent to the inspection</b>	Yes
<b>Regulated areas evaluated during inspection</b>	Yes

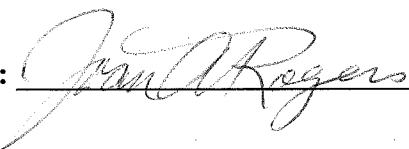
*Inspector Observations and Documentary Support of Observations*

<b>Included in Report?</b>	<b>IEPA inspection April 16, 2012</b>
<b>Narrative description of field activities conducted</b>	Yes
<b>Permit requirement</b>	Yes
<b>Observations made regarding permit requirements</b>	Yes

<b>Information to support the observations that are made</b>	Yes
<b>Inspection checklists</b>	Yes. Illinois Environmental Protection Agency Livestock Facility Inspection Checklist
<b>Corrective actions</b>	N/A
<b>Report date and signatures</b>	Signature only

*Inspection Report Sufficiency*

<b>INSPECTION</b>	<b>EVALUATION</b>
<b>IEPA inspection April 16, 2012</b>	The information contained in the inspection report is sufficient for making a compliance determination.

**Signature:**  **Date:** 1/15/13

**Attachment:**

IEPA BOW Peoria Inspection Report, April 16, 2012  
 IEPA Livestock Facility Inspection Checklist, April 16, 2012  
 EPA Compliance Evaluation Inspection Report, January 9, 2013  
 EPA Aerial photograph of Hollis Shafer Swine Farm – Attachment A



**Inspection Report**

Subject: Fulton County                      Hollis Shafer Swine Farm  
(Astoria)                                      CAFO Inspection

To: DWPC/FOS & RU

From: Star M. Fowler              DWPC-FOS, Peoria Region

Date: April 16, 2012

On April 16, 2012 Eric Ackerman and I conducted a CAFO Inspection at Hollis Shafer Swine Farm in rural Fulton County. Hollis Shafer and Steve Whittig were contacted by telephone but neither were available for the inspection. Chris Cooper accompanied us during the inspection. Some of the information in this report was obtained through a telephone conversation with Mr. Whittig on May 14, 2012 and a telephone conversation with Mr. Shafer on May 30, 2012. A plan view, various drawings of the site, and digital photographs of the area are attached to this report. Weather conditions for the day were sunny to cloudy with the temperature near 52°F. The following paragraphs provide further details of the field visit which complement the CAFO Checklist.

**Location:**

Hollis Shafer Swine Farm is located approximately 4 miles southwest of Astoria, Illinois. The legal description of the swine facility is the NE ¼, Section 31, T3N-R1E (Astoria Township) in Fulton County. This facility is located in the watershed of an unnamed tributary to Sugar Creek. Sugar Creek is tributary to the Illinois River. (Stream Code: unnamed tributary to DH).

**Contact Information:**

The facility is owned by Hollis Shafer and is managed by Steve Whittig. Contact information for the facility and the personnel in charge are below:

**Owner:**

Hollis Shafer

Exemption 6 and Exemption 7C

Exemption 6 and Exemption 7C

**Manager:**

Steve Whittig

Phone:

Exemption 6 and Exemption 7C

**On-Site Employee:**

Chris Cooper

Phone:

Exemption 6 and Exemption 7C

Exemption 6 and Exemption 7C

**Facility:**

Hollis Shafer Swine Farm      Phone: (309) 329-2283  
785 N. Taylor Lane  
Astoria, IL 61501

**Biosecurity:**

A state issued vehicle was used as transportation to the facility. The vehicle was not washed before the inspection, but the vehicle did not enter the facility. The vehicle remained on N. Taylor Lane. The required 24-Hour downtime between inspections of the same species was observed. Protective booties were worn during the inspection. All other biosecurity measures were waved. Direct contact with the animals was avoided.

The facility did report that the Porcine Reproductive and Respiratory Syndrome (PRRS) virus had recently infected the facility. Mr. Cooper stated that the virus had already run its course over the last month and the new piglets are PRRS negative.

**Site Description:**

Hollis Shafer Swine Farm is an approximately 2,400 head sow farrow to wean operation. The site has the capacity for more than 2,400 sows, but the site does not use all the total confinement buildings keeping the working capacity of the facility at approximately 2,400 sows. During the inspection the site consisted of only approximately 2,350 sows, a recent outbreak of PRRS had occurred at the facility and lowered the number of sows on-site.

Below is a table of the number of animals on-site:

Animal	# During Inspection	Capacity
Sow	~2,350	~2,400
Gilt	~150	~150
Boar	~4	~8
Piglet	~4,000	~4,000
<b>Total</b>	<b>~2,504 (Without Piglets)</b>	<b>~2,558 (Without Piglets)</b>

The site weans the piglets at 21 days and sends the piglets to a finishing facility. This facility has 4-5 contracts with finishing operations that receive piglets from this facility. These contracts were reported as not being local. Every week, on Monday, approximately 1,200 piglets are removed from the site.

This facility is a shower-in shower-out facility. There are 9 employees that work on-site full time. The employees have a designated parking area that is strictly enforced.

**Manure Collection System:**

This facility consists of 15 total confinement buildings. Mr. Whittig reported that now 14 of the buildings on-site are equipped with pull-plug shallow pits that gravity drain into either of the two pump stations on-site. There is also an emergency storage livestock lagoon located on the south side of the facility that the collection system drains to by gravity.

There is one total confinement building that is no longer being used that has the manure drain directly into a small abandoned manure storage basin. For more details of this total confinement building and the manure storage basin please see the below section titled *Abandoned Small Manure Storage Basin*.

During the inspection not all 15 total confinement buildings are being used. Five of the fifteen total confinement buildings are no longer being used to produce hogs. Building H on the south

side of the facility was reported to be vacant at this time, but does have the capability to produce hogs. Building E on the north side of the site has been converted into a storage building. Three other total confinement buildings were reported as being vacant and not in service at this time. During the inspection only 10 of the 15 total confinement buildings were being used. For visual of the site see Figure 3.

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The facility in the spring of 2011 added a new addition onto the Gestation-Farrowing Confinement Unit, Building A, located on the northeast side of the site. This new addition extends the building another 800' long. The addition is equipped with a 10' deep manure storage pit. The addition was constructed with a perimeter tile. The perimeter tile discharge was not observed during the inspection. The perimeter tile was reported as discharging to the south of the building.

#### *Pump Stations:*

This facility has two pump stations that are used to collect the manure from the shallow pits in the buildings by gravity. The pump stations were previously reported to be 12' RCP Wet Wells and were approximately 5' in diameter. It was reported that the manure is removed from the pump station using 10 Hp electric motor pumps that pump the manure through a pipeline into the manure storage basin.

#### *North Side Pump Station:*

The North Side Pump Station has the capability of receiving manure from 7 of the 8 total confinement buildings on the north side of the site. Only 4 total confinement buildings are feeding into this pump station during the inspection. There are three buildings that are empty and no longer used to produce hogs at this time. One building, Building B, is not connected to the pump station and instead is equipped with a Small Manure Storage Basin. Building A is now partially draining manure into the 10' deep storage pit on the new addition side. For Building A, the manure from the new addition and a small 150 Sow area in the old side of the building is stored in the new 10' deep storage pit, while the rest of the old side of Building A still drains into the North Side Pump Station.

#### *South Side Pump Station:*

The South Side Pump Station has the capability of receiving manure from 7 of the total confinement buildings on-site. 6 total confinement buildings are feeding into this pump station during the inspection.

There were several issues occurring with this pump station. This pump station had recently had manure released from the pump station, there were manure solids surrounding the pump station. This released manure will drain to the east and enter a ravine and could eventually enter a stream.

Mr. Cooper explained that the centrifugal 10 hp pump broke approximately one month ago. Cook AL Electric Motors was hired the next day to replace the pump motor, in doing so the impeller was damaged. The impeller has remained damaged since and the pump station is not working.

Mr. Cooper stated that this pump station had recently foamed up over the top and had some manure released through the foam. During the inspection this pump station only had approximately 2-3 feet of freeboard.

In discussing how the collection of the manure occurs Mr. Cooper explained that he tests the pump station pump before pumping the manure from the pump station into the Manure Storage Basin. He explained that he removed the pump from the discharge pipeline and allows the pump to run blowing out anything that may be caught in the pumping system. This pump discharge is discharged to the ground next to the pump station. There was observed next to the pump station manure solids, piglet remains, and insemination rods. Better management inside the total confinement buildings could help in keeping items out of the manure storage pits in the building's that should not be entering the pits.

On May 30, 2012, during the telephone conversation with Mr. Shafer it was stated that the South Side Pump Station is now fully operational and has been for approximately a month.

#### *Manure Storage Basin:*

The majority of the manure for the facility is stored in a large rectangular shaped below ground concrete manure storage pit, referred to as the Manure Storage Basin. Liquid manure is pumped into this basin from the North Side Pump Station and the South Side Pump Station. This basin was described as being 240' long, 80' wide, and 8' deep. This basin allows for 1.15 MG of liquid manure storage.

During the inspection manure had recently been land applied from this basin. The freeboard level was approximately 6' and there was approximately 2' of manure liquid with solids in the bottom of the basin.

#### *Abandoned Small Manure Storage Basin:*

The only building not connected to a pump station is Building B, today this building is not being used to raise hogs. This building is located on the north side of the site is equipped with a shallow pull-plug system that drains directly to a small below ground storage basin. The now abandoned small manure storage basin is a concrete basin approximately 44' long, 20' wide, and 8' deep, with approximately 0.02 MG storage. This small storage basin had approximately 6' of freeboard during the inspection.

#### *Livestock Lagoon:*

The livestock lagoon is used only for emergency storage. The lagoon is approximately 32 feet long, 12 feet wide, and 8 feet deep allowing for approximately 750,000 gallons of storage. There is a pull-valve from the main manure collection pipeline that allows the manure to enter into the lagoon by gravity.

During the inspection the lagoon had a freeboard of approximately 1.5 feet. There was no freeboard marker in the lagoon. The lagoon liquid has a very distinct red coloration. The berms surrounding the lagoon were thickly vegetated. Mr. Cooper reported that the last time manure had entered the lagoon was approximately 1 year ago. He stated that there were no plans at this time to remove liquid from the lagoon.

### **Manure Collection System Problems:**

Pipelines from buildings pull plug system are releasing manure from cleanouts where the building's pipeline enters the main pipeline into the South Side Pump Station. These manure releases were contributed to low clean-outs and the manure becoming plugged in the system. This has occurred at two locations so far: Building G and Building H. Mr. Cooper dug up the pipelines and created taller cleanouts to help prevent future manure releases from the manure back-ups. The buildings manure drain lines are believed to enter the manure collection mainline at a 90° angle. See Figure 3 for diagram of facility's manure collection system with estimated locations of clean-outs with recent manure releases.

Mr. Cooper stated that the manure release from Building G was from some plastic piece inside the building pit becoming clogged in the manure collection pipeline. This is another case where items entered the manure storage pit under the buildings pits and create a manure release from the manure collection system.

### **Manure Management:**

The facility does perform some of the land application of the manure and has land application equipment on-site. The majority of the land application is contracted out to Matt Bradshaw.

#### *Facility:*

Mr. Cooper does some of the facility's land application. The facility has a Blazer 6000 Gallon Magnum tank attached to injection equipment with 5 injection knives. This tank is pulled by a 9280 Versatile Ford tractor.

There were some manure land application records that were kept inside the tractor. These records included the date: month and day, and the number of trips that were made. Better recording keep should occur in the future.

#### *Matt Bradshaw, Twin Valley Pumping:*

Land application is contracted out to the owner and operator of Twin Valley Pumping, Matt Bradshaw. Mr. Bradshaw uses dragline injection equipment with the capability of applying the manure within a three mile radius of the facility. According to Mr. Whittig Twin Valley Pumping does approximately 80% of the land application for the facility. In the future Mr. Whittig would like to have even more of the land application contracted out to Twin Valley Pumping.

#### *Crop Land Available:*

Mr. Wittig was able to identify a few of the fields that are available for the land application of the manure from this facility.

Below is a summary of the fields available to the facility for land application:

Owner	Field	Method	Acres
Exemption 6 and Exemption 7C	Pasture/Wheat Fields	Surface Apply	~120 Acres
Exemption 6 and Exemption 7C	Cropland (Corn/Bean)	Surface Apply	~60 Acres
Exemption 6 and Exemption 7C	Cropland (Corn/Bean)	Inject or Surface Apply	600-800 Acres
Exemption 6 and Exemption 7C	Cropland (Corn/Bean)	Inject or Surface Apply	300-400 Acres
	Pasture	Surface Apply	~3,000 Acres

Facility Owned			~18 Acres
		<b>Total</b>	~4,300

**Mortalities:**

This facility had recently had an outbreak of the PRRS virus leading to approximately 8-9 sows a day death rate. Today approximately a month after the PRRS virus outbreak the death rate has dropped to approximately 1-2 sows a week death rate. The carbon source being used for the mortality compost units is mulch. Mr. Whittig reported that the mulch is received from a local distributor that uses trees and landscape waste as the mulch.

*North Mortality Compost Unit:*

The North Mortality Compost Unit was reported as being used to compost all the sow mortalities at the facility and all the piglet mortalities on the north side of the facility. This compost unit consists of 5 bays. It is oriented north south, with three bays opening to the west and two bays opening to the east. The compost unit was open to the elements.

Very dark colored and odorous leachate was observed being released from both side of this mortality compost unit. There were multiple bones observed not being properly covered. There were also sow carcasses exposed. See Photographs #13-#18.

Mr. Cooper had recently installed a tile drainage line on the east side of the compost unit for the two east bays. This tile drains the leachate from the east bays and releases the liquid approximately 100 feet east underground into the adjacent field. During the inspection the outlet for the tile was not observed.

*South Mortality Compost Unit:*

Located on the south side of the site is a small mortality compost unit that is oriented north south with the bays opening to the east. This mortality compost unit had only three bays that were each approximately 10 feet wide, 15 feet deep, and 4 feet tall. The compost unit was open to the elements. Mr. Cooper explained that this compost unit is used only for piglets. Approximately 30-40 piglets, or about half a bobcat bucket, are added to the compost unit daily. It was reported that daily records are maintained on the compost unit. Mr. Cooper stated that last year was the last time the composter was cleaned out with the material land applied.

This compost unit was observed with leachate pooling near the composter. There did not appear to be enough carbon source (mulch), and the carbon source being used appeared to have a high moisture content. There was no thermometer or temperature readings being taken. See Photographs #8-#11.

**Vector Attraction:**

During the inspection a coyote was observed while on-site. It is believed that the coyote was heading towards a mortality compost unit.

**Building Cooling Cells:**

A majority of the total confinement buildings are cooled using exterior cooling cells. This water for the cooling system is attempted to be recycled in a closed-loop system, but during the inspection there was water releasing from the system. This water that is released from this system did not appear to be entering the total confinement building pit.

**Feed:**

Feed is ground on-site. During the inspection there were two locations found where old feed was piled in the wood line in an attempt to dispose of the old feed. This old feed should be properly land applied.

**On-Site Water:**

This facility is connected with the public water supply from Astoria. There are also three deep wells that are used to supply water for the facility. There is one well located on the north side of the site that is approximately 500 feet deep. The other two wells are located on the south side of the site and are approximately 500 and 1,200 feet deep. The wells are used for the hogs with the public water supply used only as an emergency water supply for the hogs. The public water supply is used as the water for the showering facilities and human facilities on-site.

**Generators:**

This facility has three generators on-site that are capable of producing power for the whole facility. These generators are equipped with manual power transfer switches. Two of the generators are PTO driven generators. These PTO generators provide power to the south side of the facility. The other generator is driven by a LP gas engine. This LP generator generates power for the north side of the facility.

**Trash Dump Sites:**

During the inspection there were two areas on-site where debris from the site had been piled near the woods line. Mr. Cooper explained that he was working on cleaning out these areas. Bob Kessler was hired and is hauling out the debris from the facility. Mr. Whittig stated that the majority of the debris is metal and is being taken to a metal scrap yard.

**Nutrient Management Plan:**

This facility reported having a Nutrient Management Plan (NMP), due to Biosecurity concerns the NMP was not provided to us on-site. According to Mr. Whittig this facility has a current NMP that was recently updated after the new total confinement building addition was installed. Terry Feldman of Maurer-Stutz, Inc. completed the NMP. Mr. Whittig stated that a copy of the NMP is kept in the office area of the facility. Mr. Whittig believed all the required records are being maintained.

**Certified Livestock Manager:**

At the time of the inspection there did not appear to be anyone with an active certificate.

**Stream Observation:**

The stream located to the west of the facility on the west side of Taylor Lane was observed. The liquid in the stream had a dark coloration.

**Summary:**

The following recommendations need to be addressed to the facility:

1. Both mortality compost units on-site are in need of maintenance. If the facility decides to keep composting mortalities then the following recommendations are necessary to obtain compliance with the mortality compost units:
  - a. The north mortality compost unit is tiled into a field. This tile should be disconnected immediately.
  - b. Evaluate the design capacity of the compost area. Make the appropriate modifications/improvements to the existing compost unit. We advise you to expand and improve the compost facility to accommodate swine mortality at your site. A University of Illinois Extension Service brochure "Carcass Composting Basics" is enclosed for your information and reference.
  - c. There is a significant amount of leachate being released from both units. There should be no leachate being released from either of the mortality compost units.
  - d. Proper cover should be established for both mortality compost units.
  - e. Proper carbon source should be used; this will help maintain proper moisture content. A few examples of proper carbon sources are: coarse sawmill sawdust, shredded corn stalks, chopped straw, coarse-ground corn cobs.
  - f. The mortality compost units should be covered to help maintain proper moisture content.
  - g. Proper records of mortalities should be maintained.
  - h. Submit a written plan for obtaining compliance for approval by the Agency.
2. The Manure Collection System is becoming plugged due to debris entering the pits. This plugging is causing liquid manure to be released through the Manure Collection System Clean-outs. A written plan should be established and enforced to keep unnecessary items (examples: piglet mortalities and insemination rods) from entering the manure collection pits beneath the total confinement buildings. All the Manure Collection System Clean-outs should be extended to approximately the same height to help prevent future liquid manure releases from the Manure Collection System.
3. South Side Pump Station is not working due to the impeller being damaged. This lead to manure overflowing and becoming released from the pump station. This pump station should be fixed immediately. All the manure solids near the pump station from the liquid manure releases should be removed and properly land applied.
4. Develop a Pump Station Procedure Manual that describes what steps should be taken before the pump station is turned on. This manual should include but is not limited to how to perform a visual inspection of the pump stations and how often visual inspections of the pump stations should occur, what actions should be taken if the pump becomes plugged with debris, what actions should be taken if a pump station is not functioning properly, and what should be done if manure becomes released from a pump station.

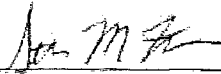
Allowing the pump to discharge liquid manure onto the ground to clean out the pipeline before connecting the pump to the discharge pipeline is not adequate. This practice is not



acceptable to the Agency. A new pump station protocol needs to be established and implemented.

5. Proper management of the Livestock Lagoon should occur. Develop a written procedures manual for the Livestock Lagoon that will be presented to the Agency for approval. Once approved this Livestock Lagoon Procedures Manual should be strictly implemented. The procedures manual should include but is not limited to:
  - a. Installation of an accurate freeboard marker.
    - i. The marker should have measurements, delineated in inches, starting at the top with zero increasing in value to the top of the liquid level. (A yard stick installed vertically with zero at the top is an example.)
    - ii. The top of the marker needs to be level with the lowest point of the lagoon berms.
    - iii. Photographic evidence of the adequate freeboard marker should be sent to the Agency.
  - b. Liquid manure should be removed to attain at all times a minimum of 2 feet of freeboard.
  - c. The integrity of the berms should be properly evaluated, with any found problems with the berms properly addressed.
  - d. The berms surrounding the Livestock Lagoon should be properly maintained. Vegetation should be kept under 6 inches in length.
6. All waste feed should be properly disposed of by land application. Waste feed is not to be disposed of by dumping into the surroundings woods or ravine.
7. Submit to the Agency any and all manure application records for the facility from January 2011 to the present.
8. Proper disposal of the debris located in the two trash dumps on-site should occur. Documentation of what debris was removed and how the debris was disposed of should be presented to the Agency. All the debris located on-site should be removed and properly disposed of, following all regulations of the Agency's Bureau of Land.
9. Since your facility has a capacity greater than 1,000 animal units someone must be certified in manure handling procedures. Previously Steve Whittig was the certified person for the facility. From Illinois Department of Agriculture it was found Steve Whittig's Certified Livestock Managers Certificate has previously expired. If Mr. Whittig has already re-certified please provide verification of the certificate. Otherwise, we recommend that you and/or an active employee at the facility attend a "Certified Livestock Manager Training Workshop" and become a Certified Livestock Manager. Training workshops are provided by the University of Illinois Extension Service.
10. Please send in a copy of the facility's Nutrient Management Plan (NMP) to the Agency for review. The NMP should be followed by the facility with all documentation being properly maintained.
11. Since, this facility has over 1,000 animal units and has multiple locations with discharges the Agency recommends that the facility apply for and obtain a NPDES Permit.

This report is submitted for your information.



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Star M. Fowler

Att: -Figures 1-3  
-Photographs

cc: -Bruce Yurdin, BOW  
-Peoria Files  
-Hollis Shafer, Owner of the Facility

# ASTORIA

# T.3 N.-R.1 E.

SEE PAGE 42

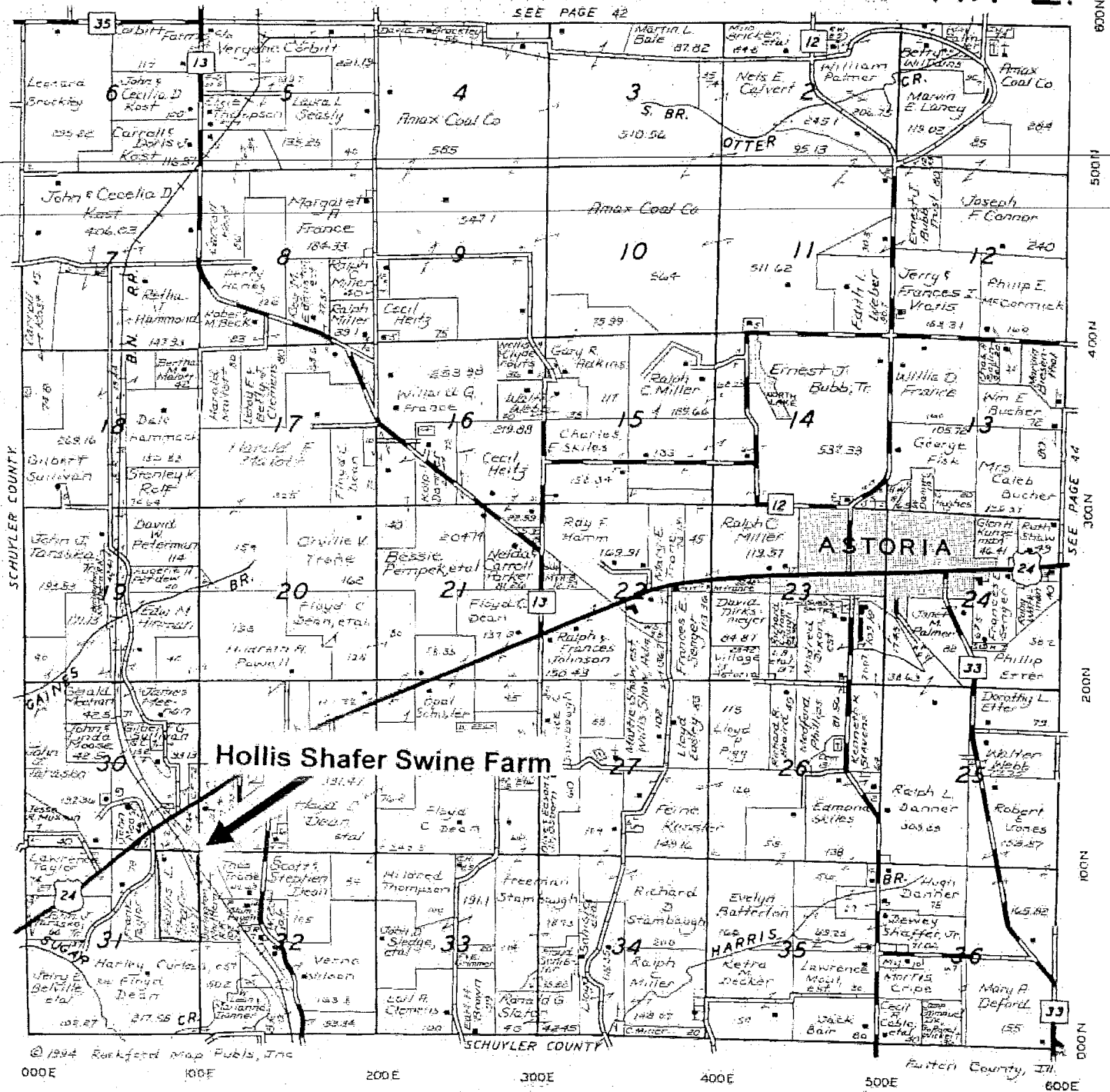


Figure 1. Location Map of Hollis Shafer Swine Farm near Astoria in Fulton County on April 16, 2012.

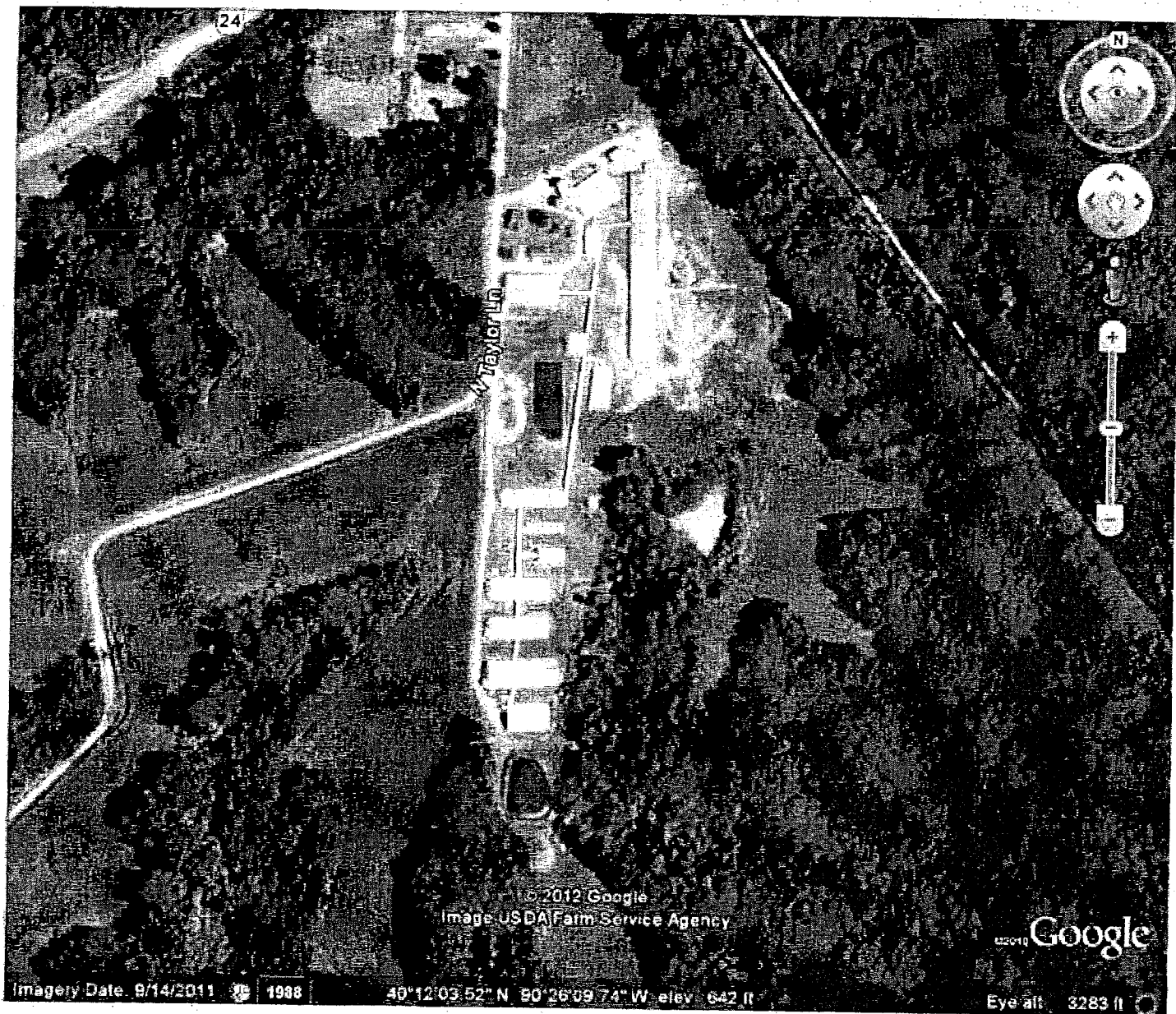


Figure 2. Plan View From Google Earth of Hollis Shafer Swine Farm located near Astoria in Fulton County on April 16, 2012.

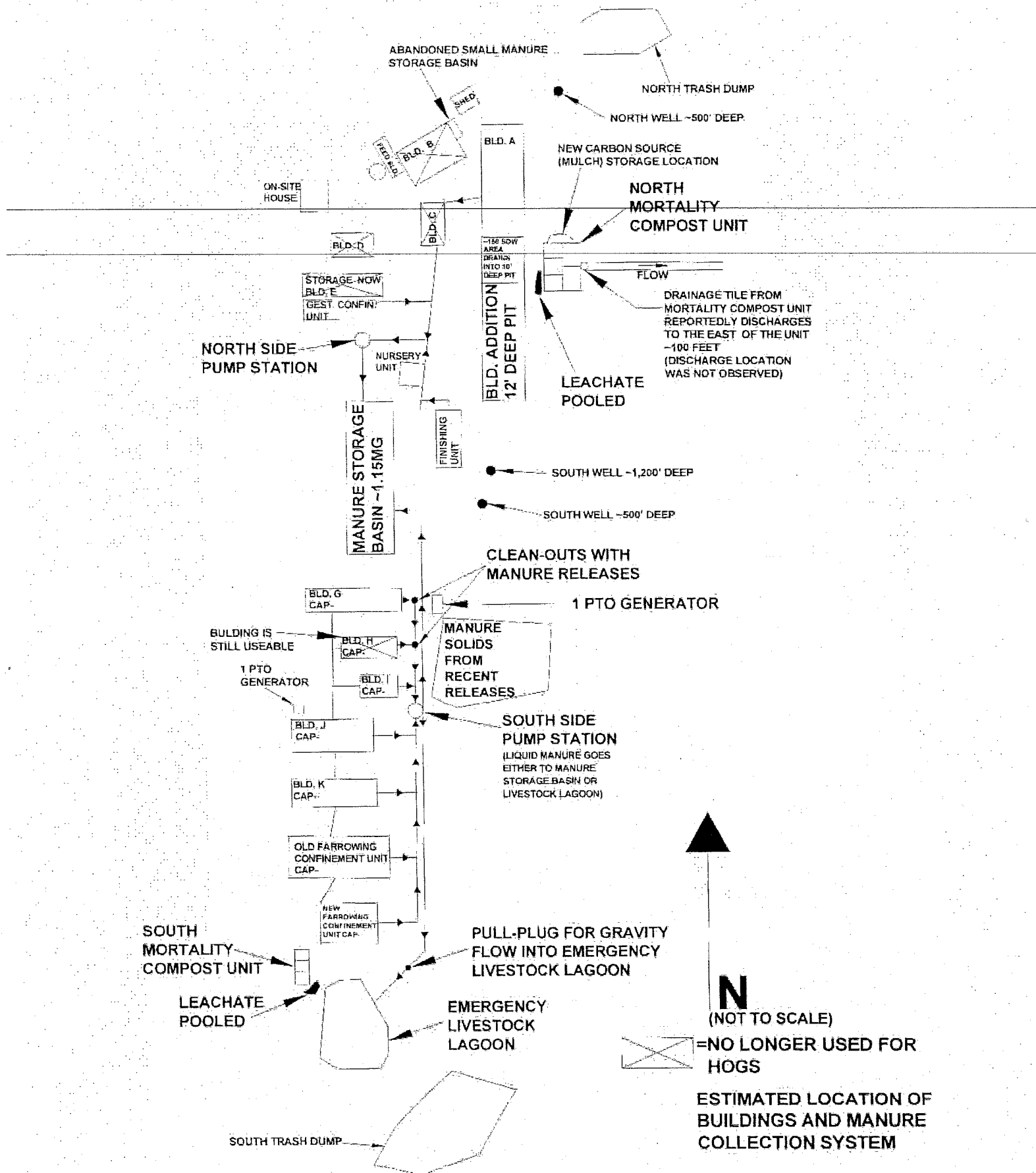
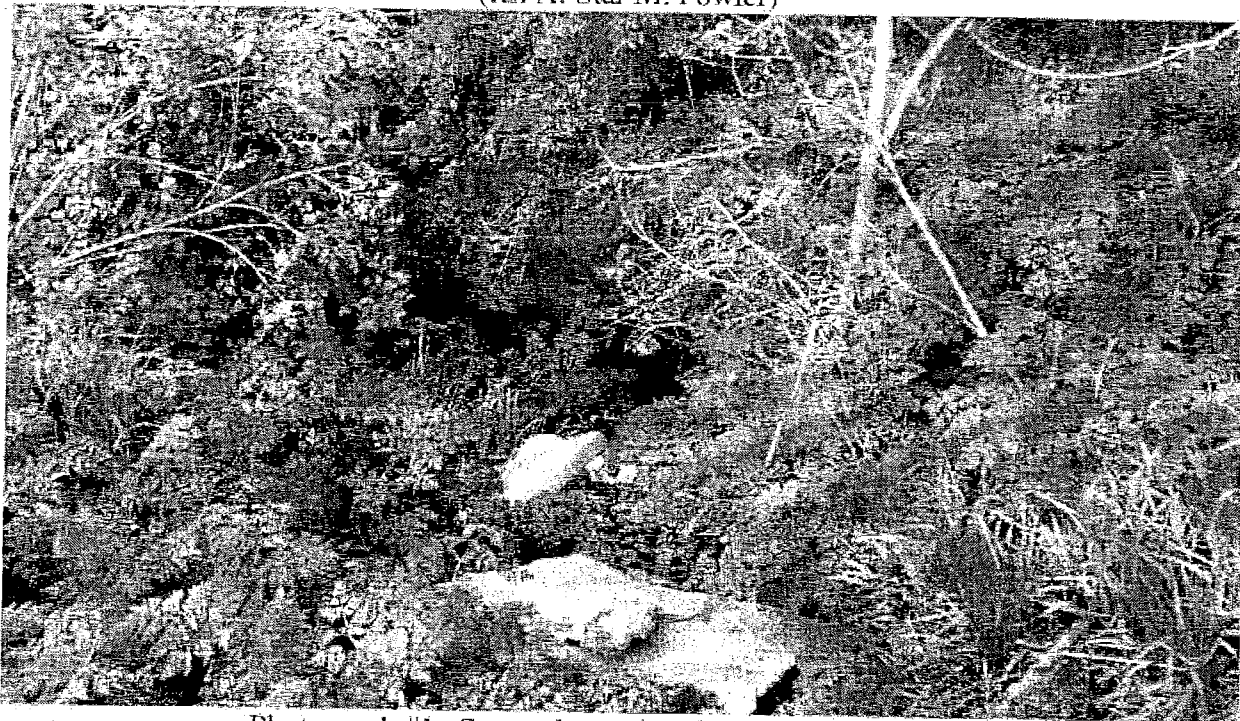
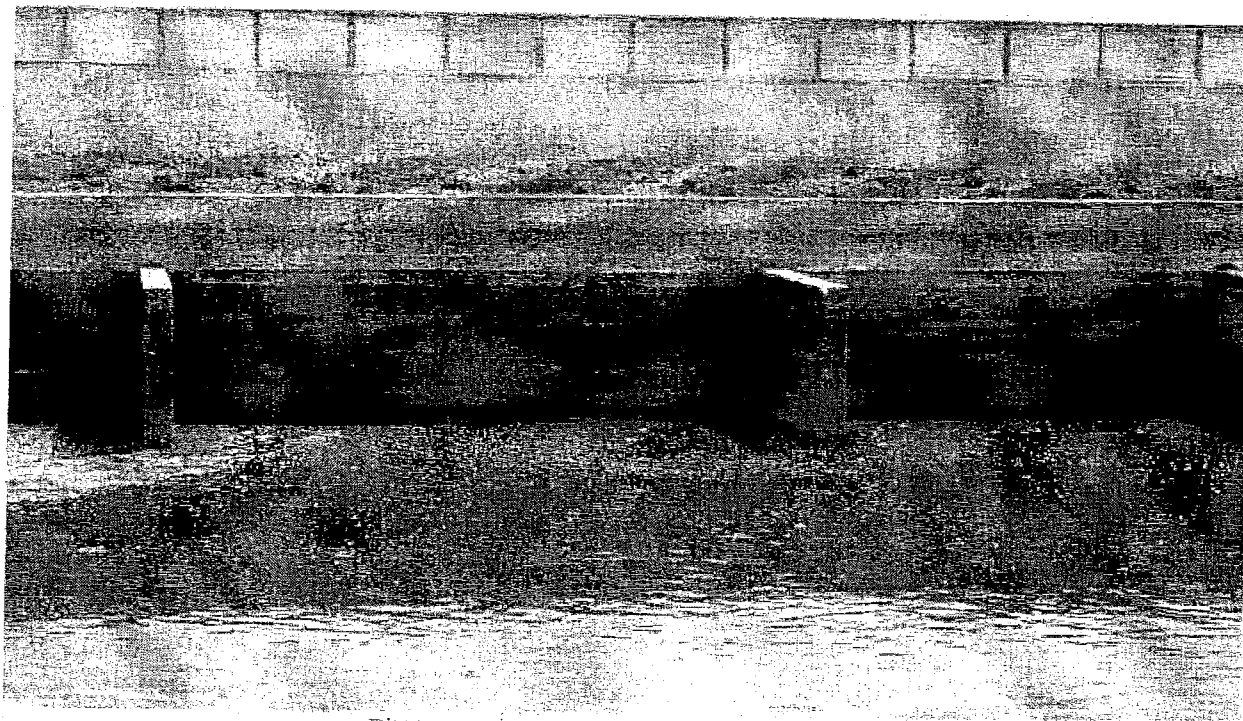


Figure 3. Diagram of Hollis Shafer Swine Farm near Astoria in Fulton County On April 16, 2012.

Hollis Shafer Sow Facility  
Fulton County  
April 16, 2012  
(IEPA: Star M. Fowler)



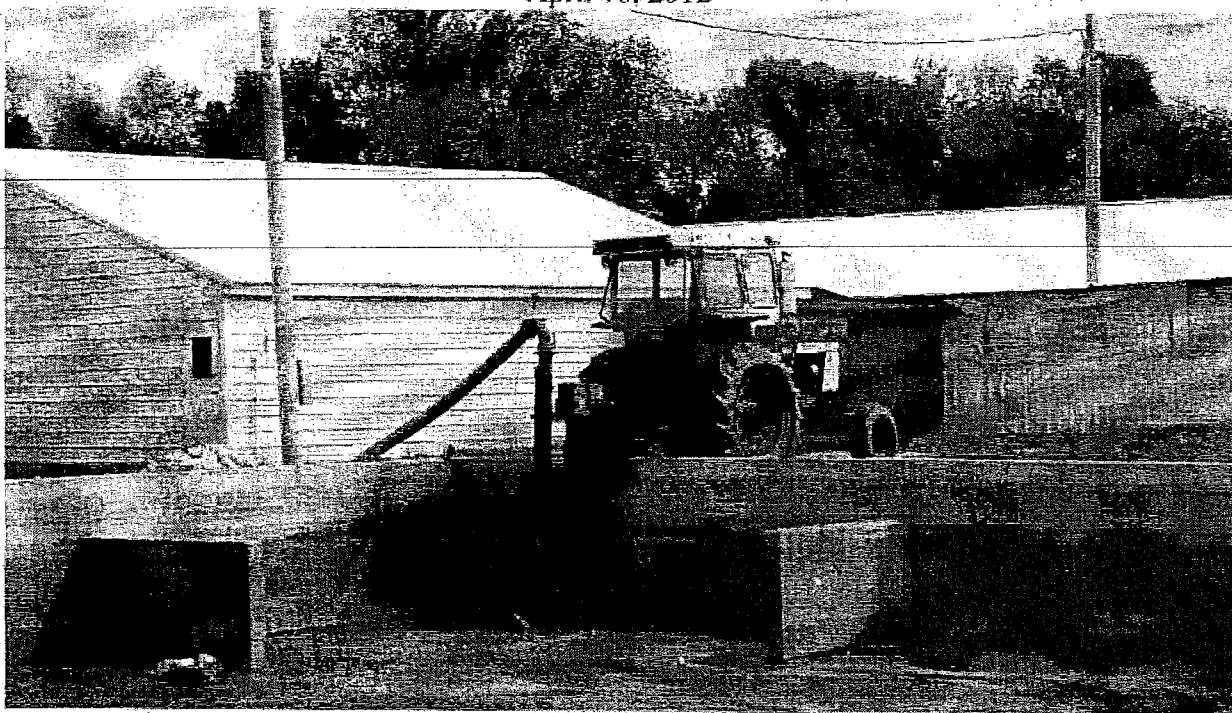
Photograph #1. Stream located to the west of the facility.



Photograph #2. Manure Storage Basin.



Hollis Shafer Sow Facility  
Fulton County  
April 16, 2012



Photograph #3. Recent liquid manure removal from the Manure Storage Basin has occurred.

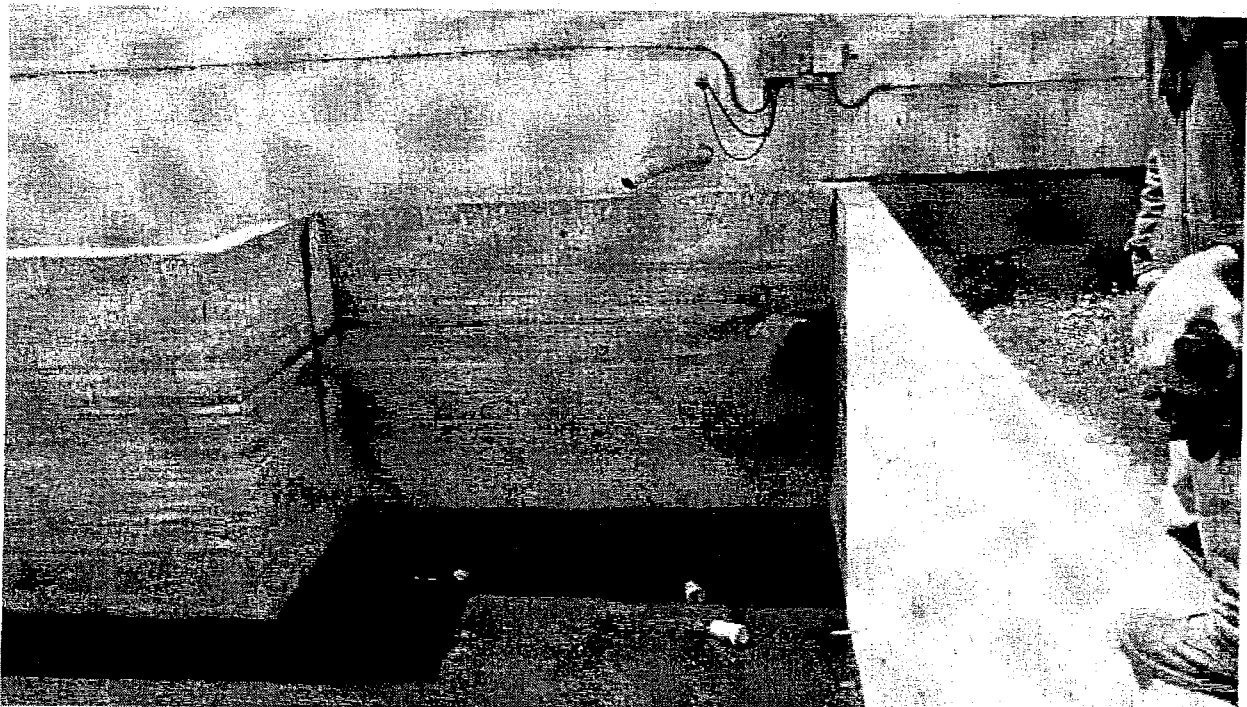


Photograph #4. Manure Storage Basin with manure solids shown.

Hollis Shafer Sow Facility  
Fulton County  
April 16, 2012



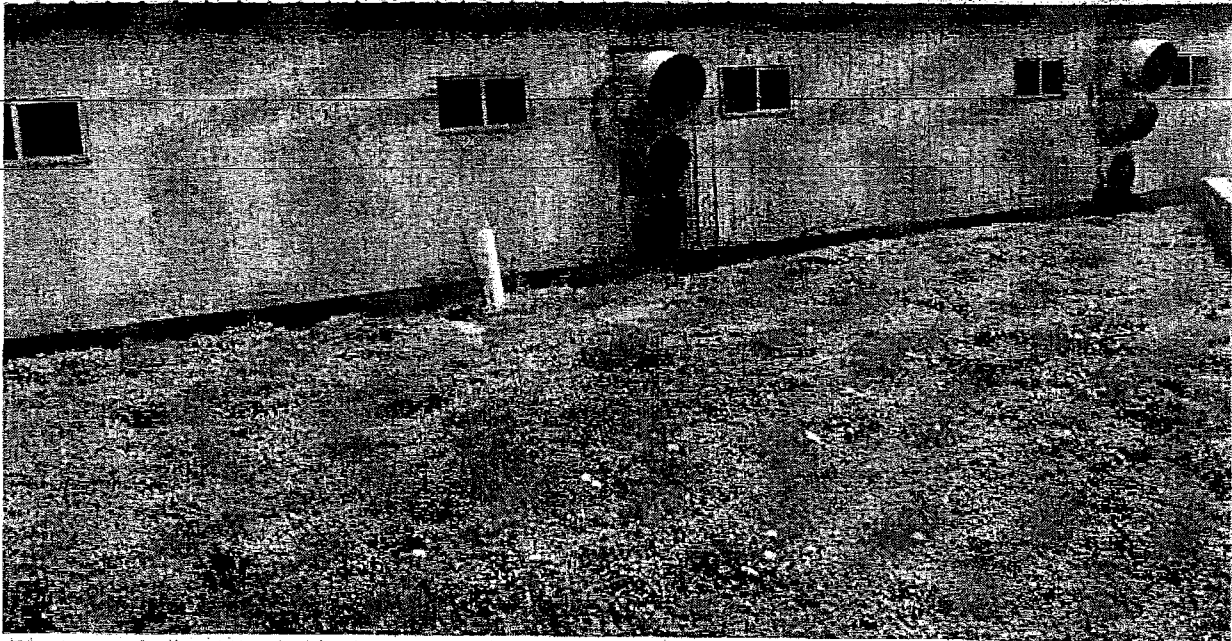
Photograph #5. Abandoned Small Manure Storage Basin.



Photograph #6. Manure used to enter the basin through the inlet pipe.



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Photograph #7. Tile inlet riser located to the east of the abandoned small manure storage basin.



Photograph #8. The South Mortality Compost Unit.

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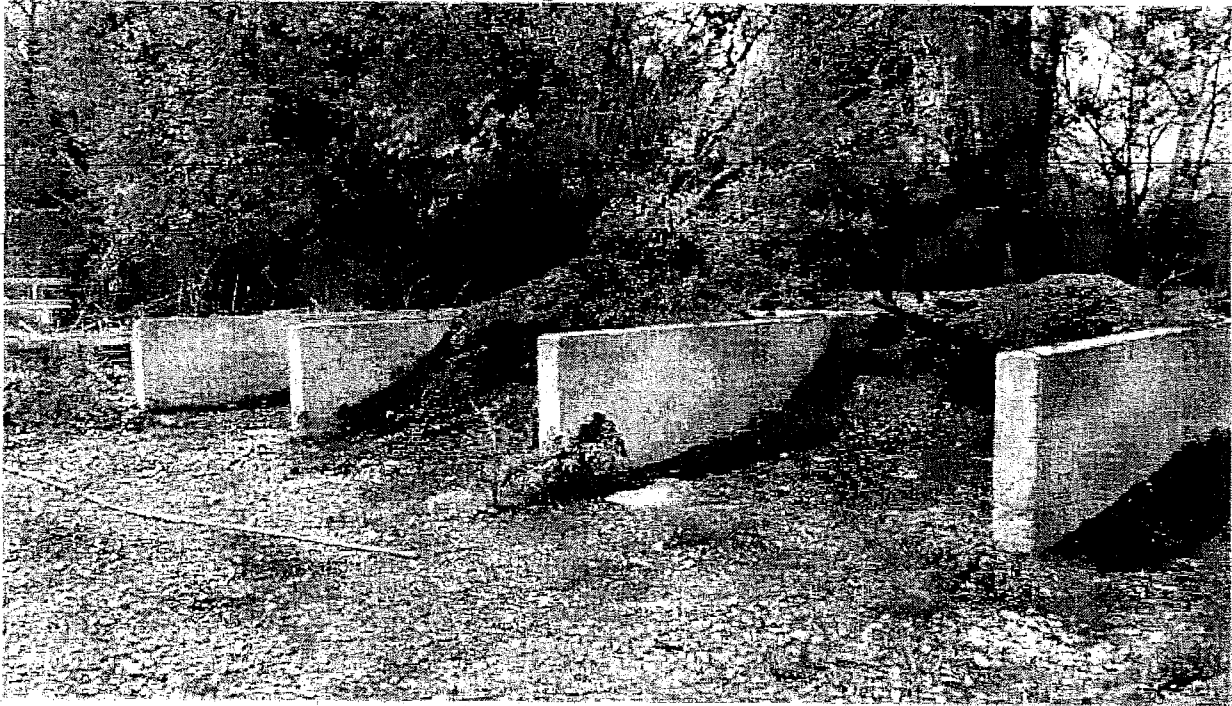


Photograph #9. Three bins of South Mortality Compost Unit.

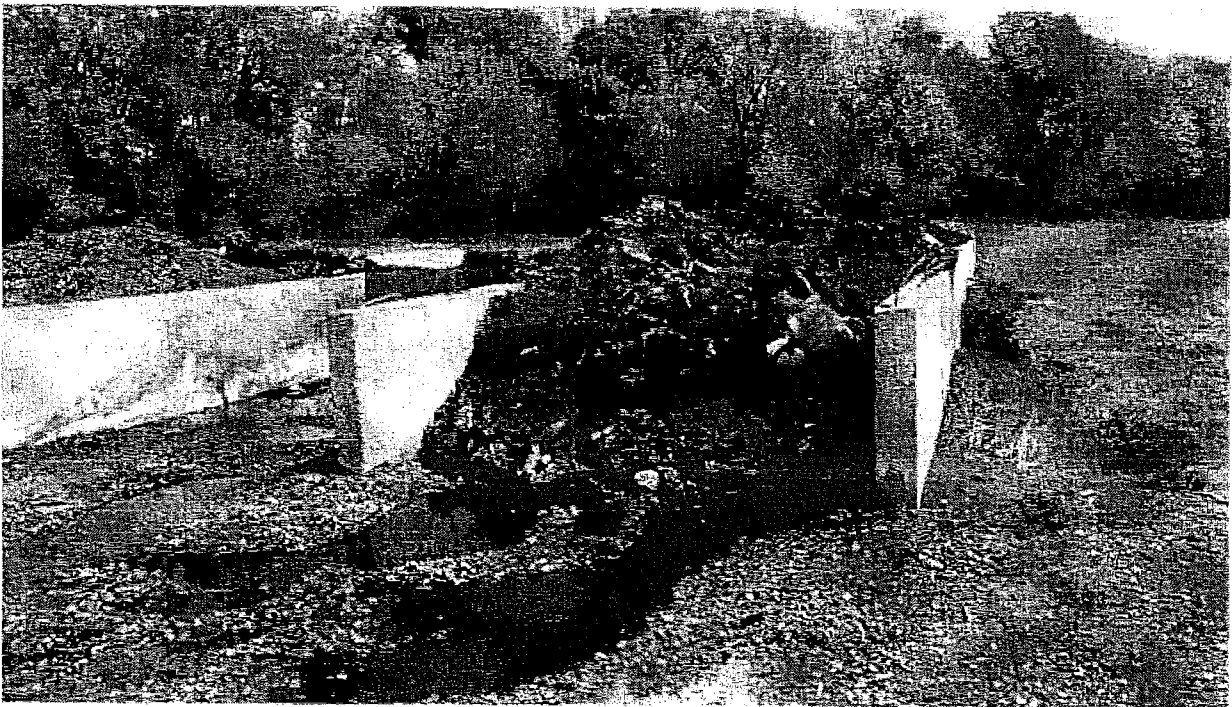


Photograph #10. Leachate from the compost unit is being released.

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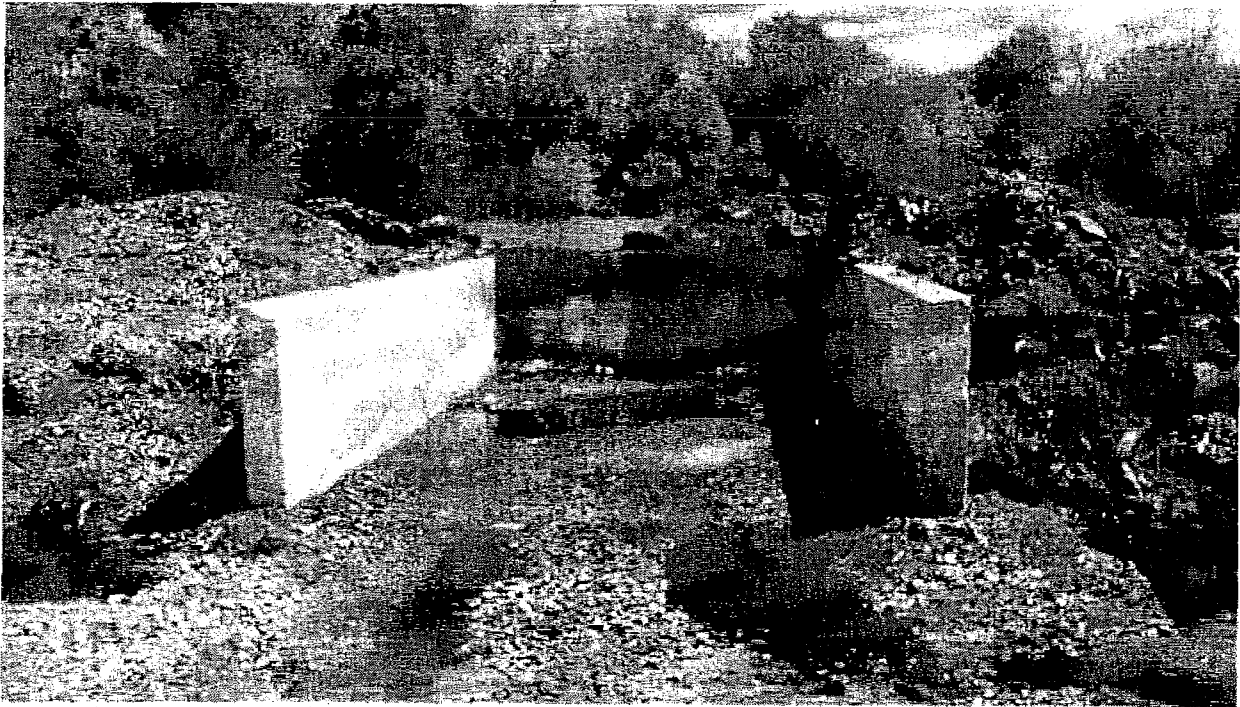
Photograph #11. South Mortality Compost Unit.



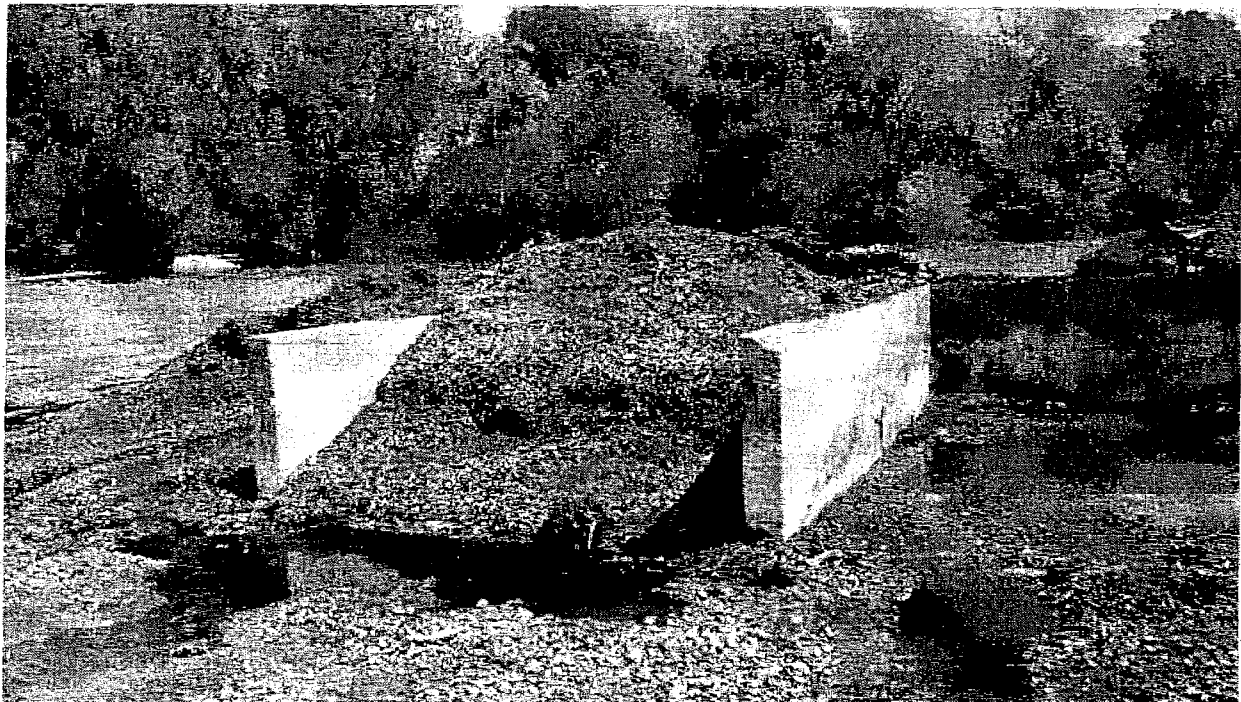
Photograph #12. North Mortality Compost Unit. Sow carcasses exposed. South Side of composter view is east.



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Photograph #13. Leachate from the North Mortality Compost Unit is being released.

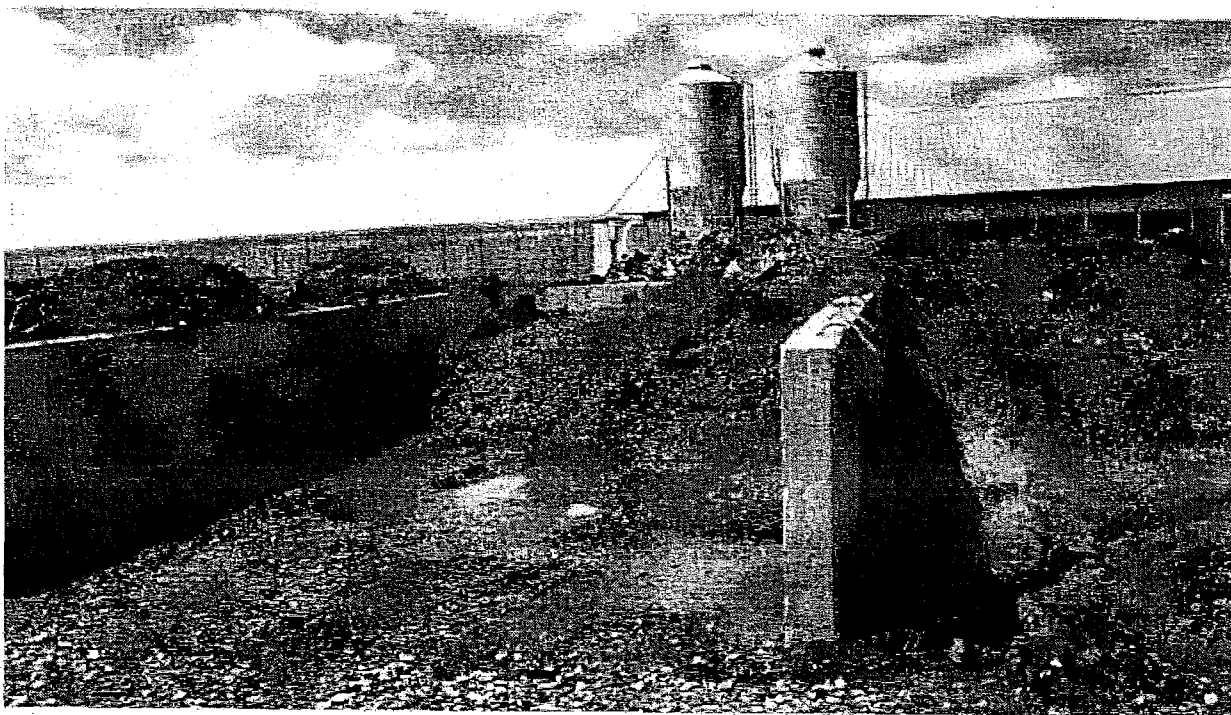


Photograph #14. Northwest bay of the North Mortality Compost Unit.

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Photograph #15. On the north side of the north compost unit the carbon source (mulch) is kept.



Photograph #16. Northeast bay of the north compost unit.

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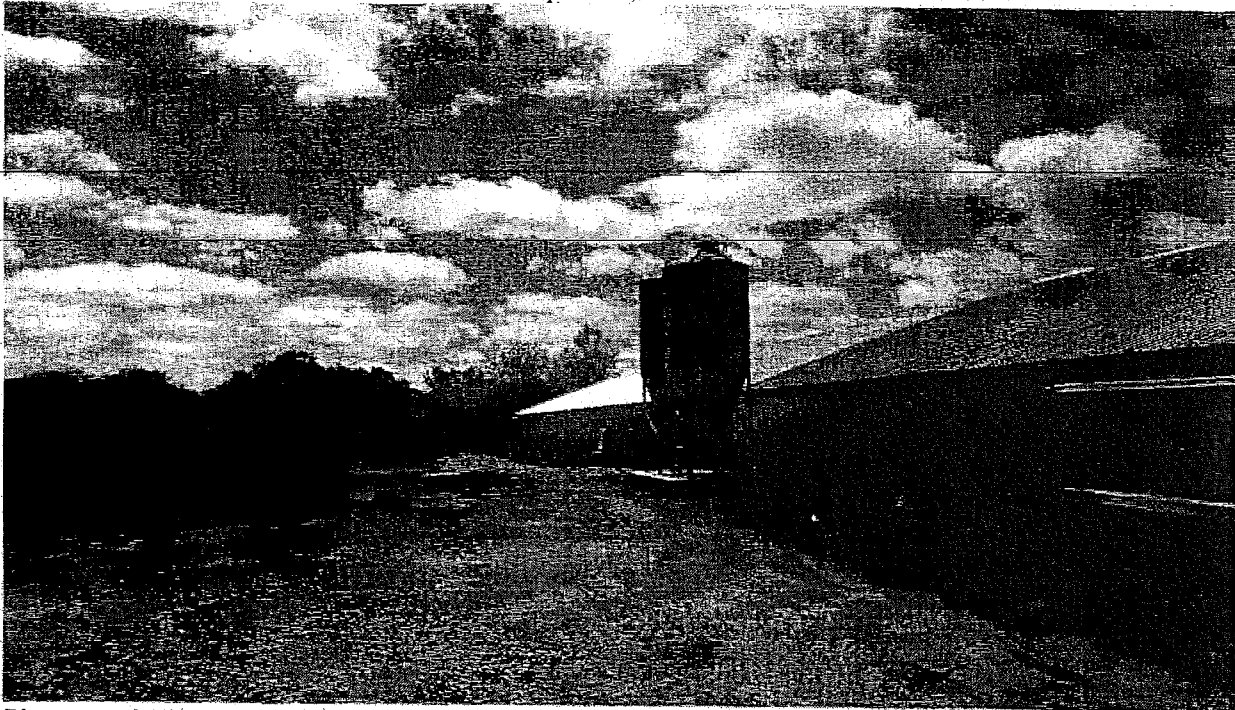


Photograph #17. The southeast bay of the north compost unit. Multiple bones are exposed. The leachate is being drained out of the compost unit.



Photograph #18. The drainage tile on the east side of the North Mortality Compost Unit. This tile is draining the leachate from the mortality compost unit to the east.

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Photograph #19. East side of the facility, view is south. North Mortality Compost Unit and new addition on the northeast total confinement building.



Photograph #20. Livestock Lagoon located on the south side of the facility.  
Liquid is a red color.



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Photograph #21. East side of Livestock Lagoon, freeboard approximately 1.5 feet.  
There is debris near the wood line,



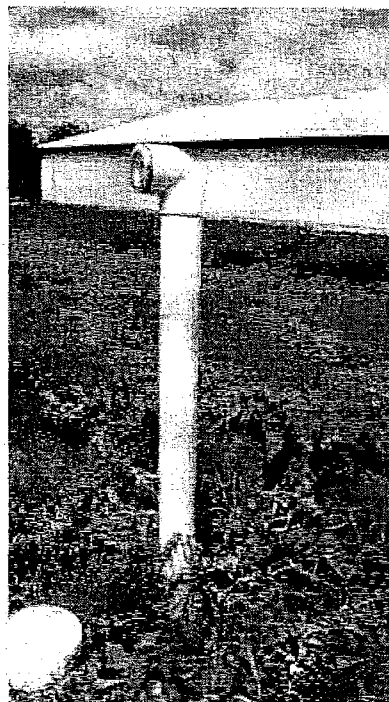
Photograph #22. Close-up of liquid in the Livestock Lagoon.



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Photograph #23. Manure collection main pipeline pull-plug from South Side Pump Station to the Livestock Lagoon.

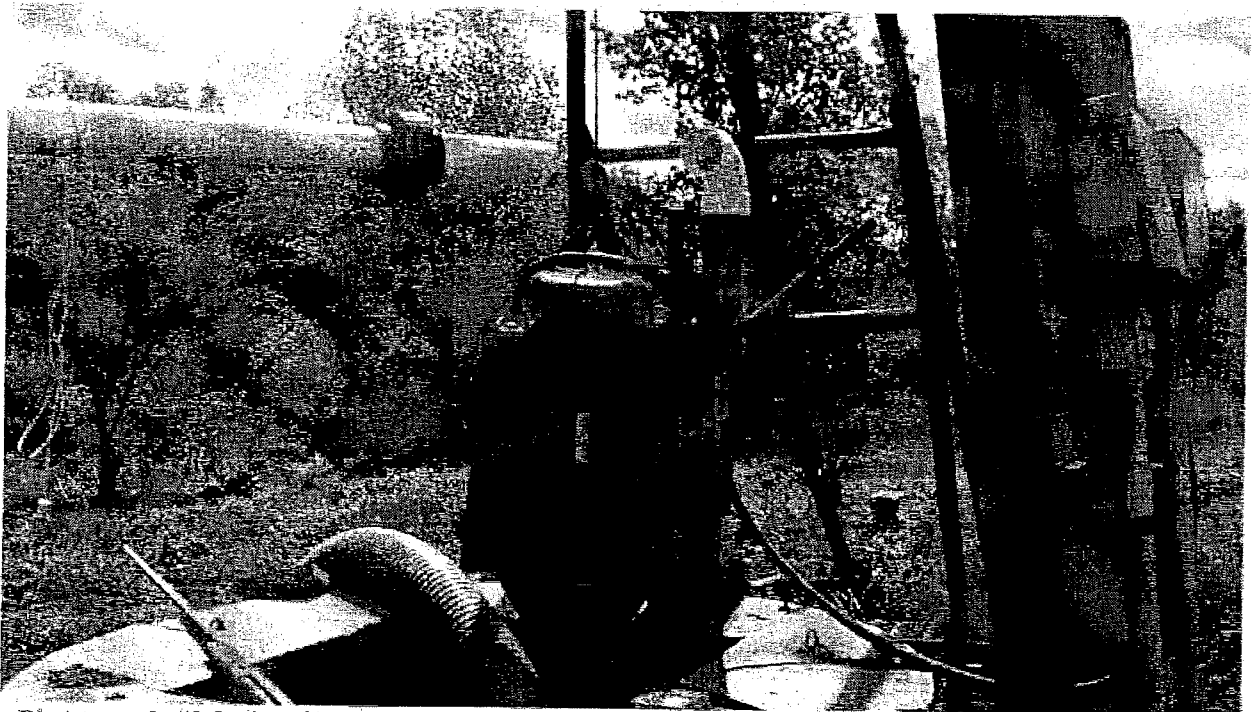


Photograph #24. Manure collection main pipeline from South Side Pump Station to the Livestock Lagoon.

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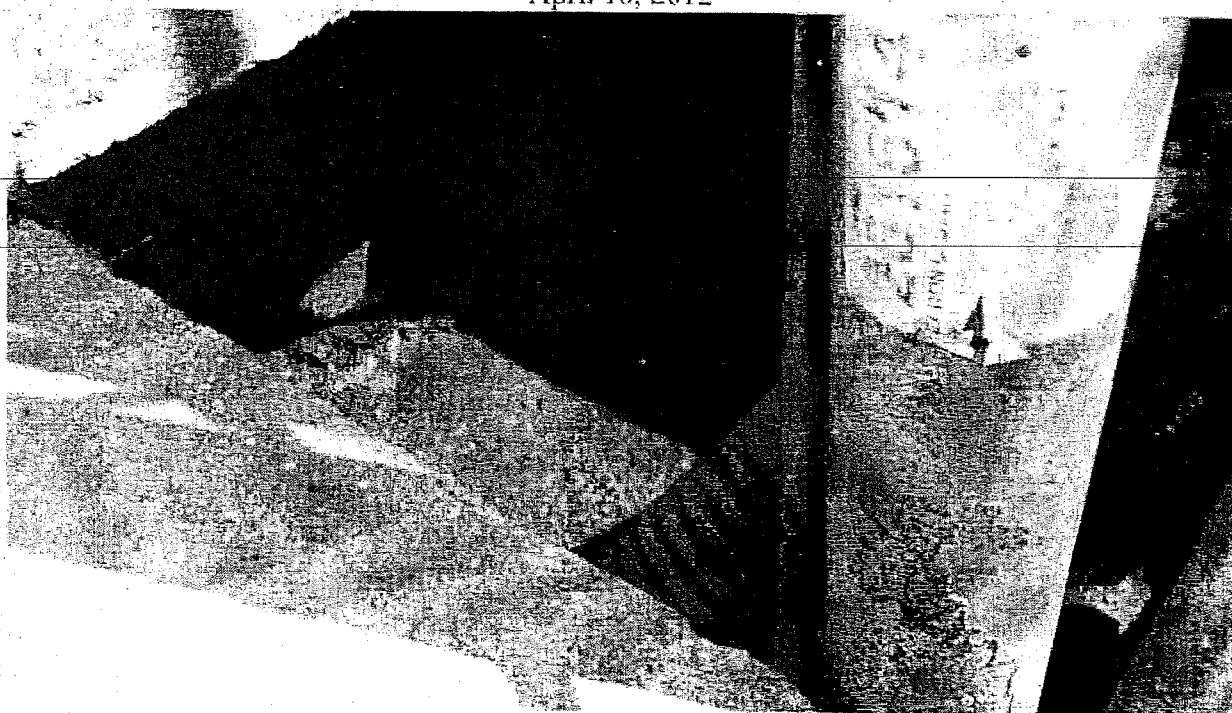


Photograph #25. South Side Pump Station.

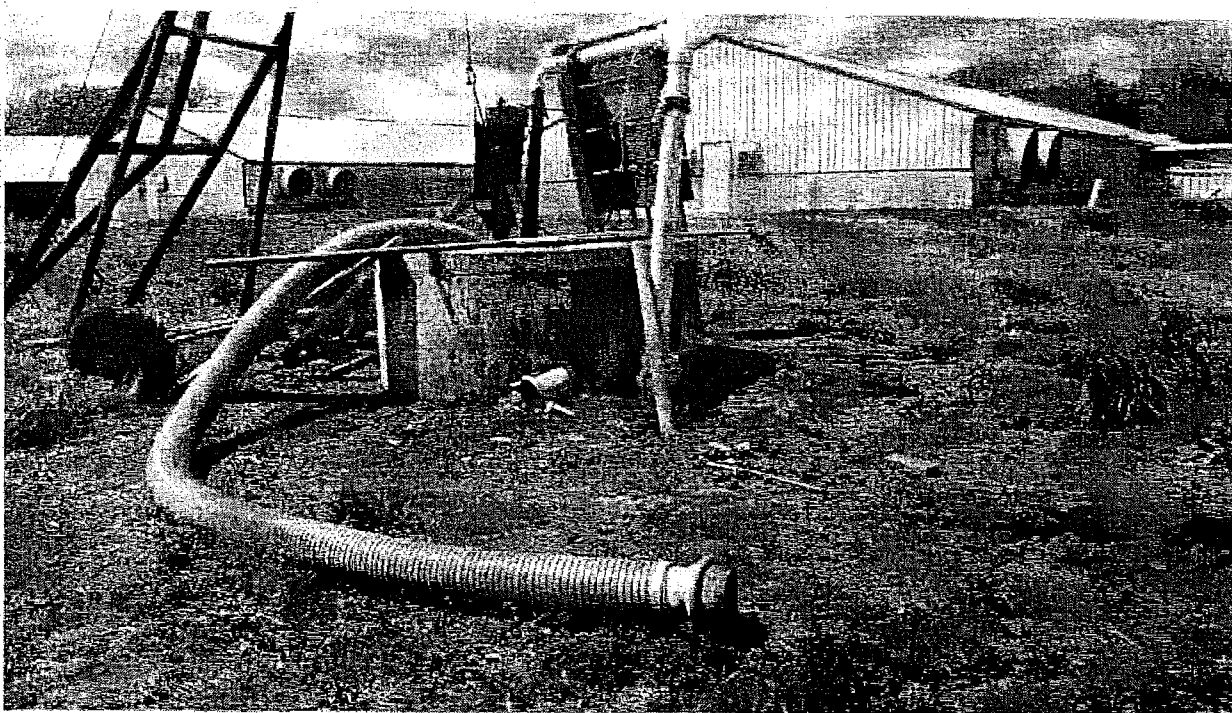


Photograph #26. South Side Pump Station, centrifugal 10 hp pump. The piping for the pump discharge is not hooked up to the transfer pipeline.

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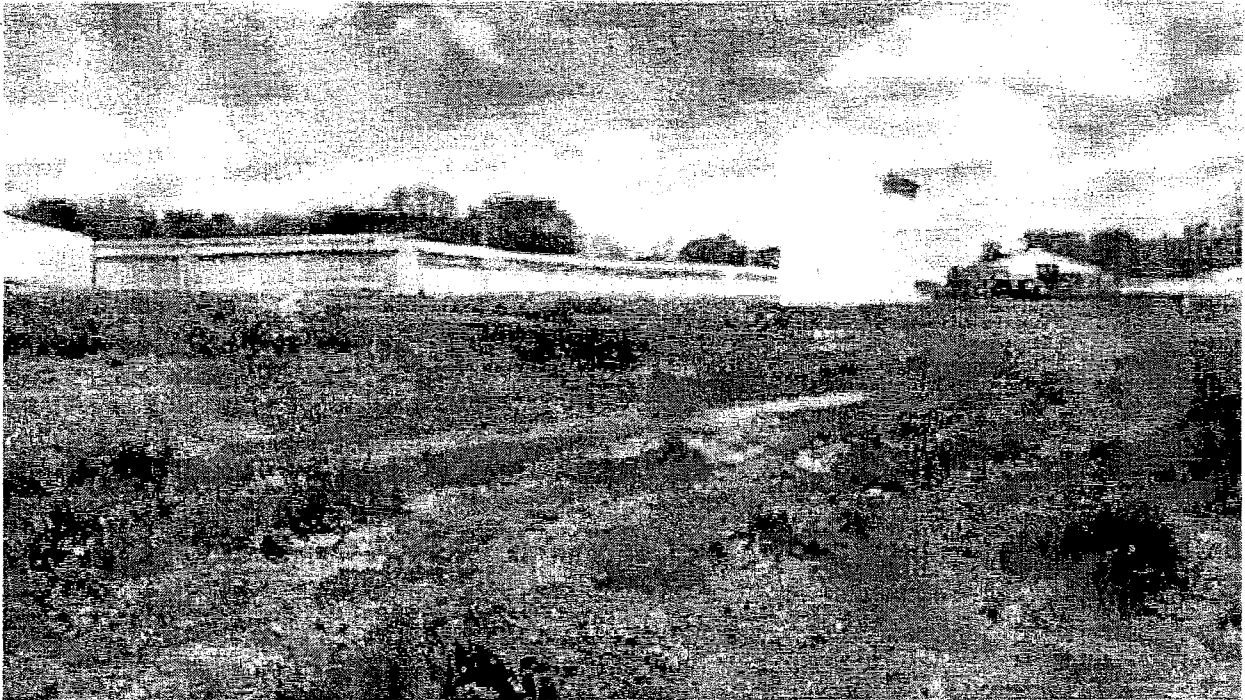


Photograph #27. Inside the South Side Pump Station approximately 2-3 feet of freeboard.

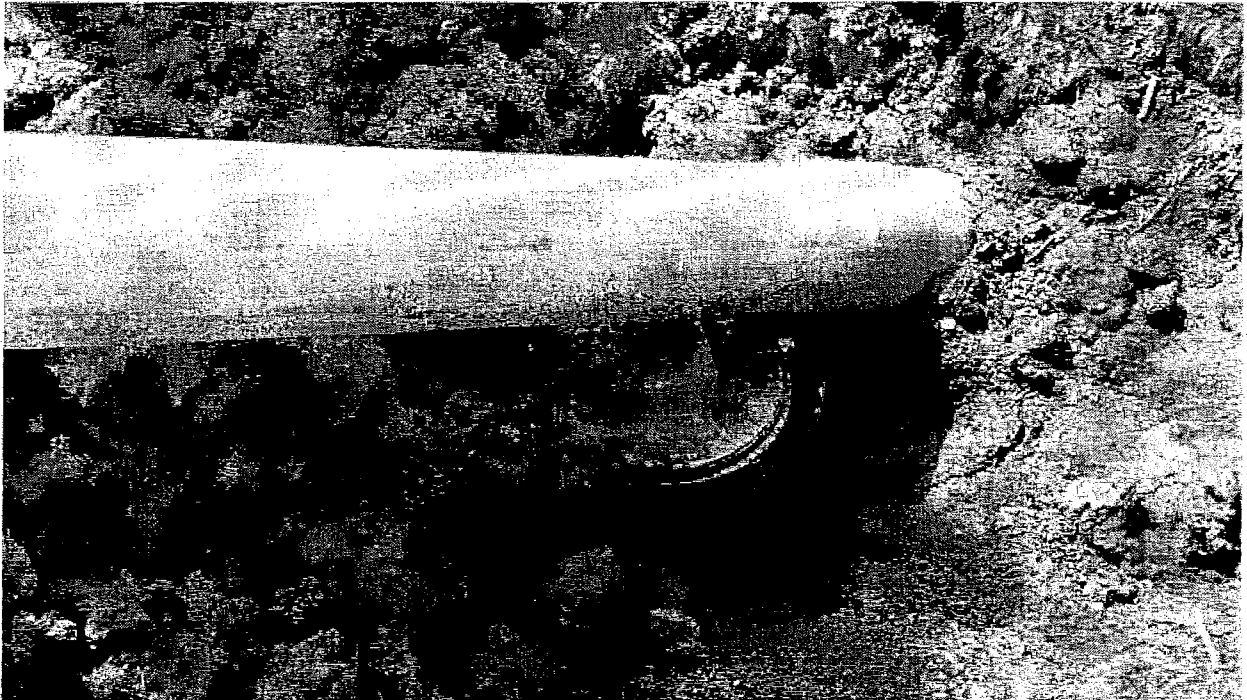


Photograph #28. Manure solids are observed surrounding the South Side Pump Station.

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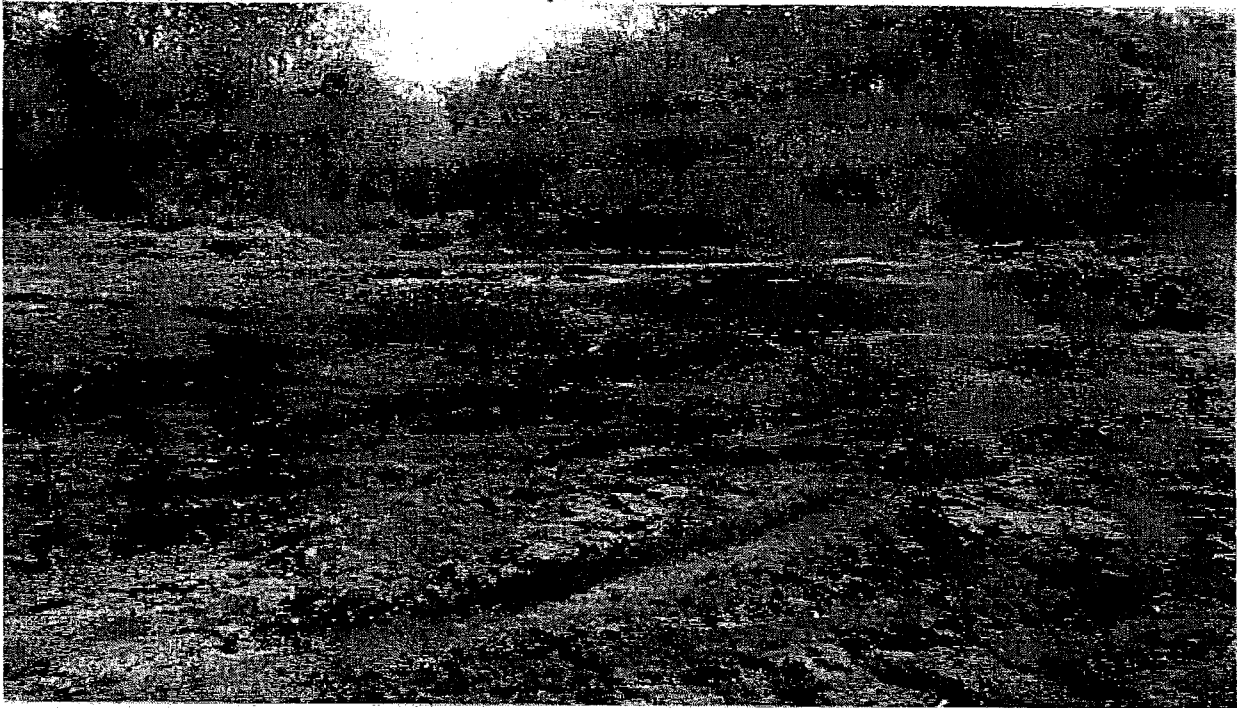
Photograph #29. The manure released from the South Side Pump Station drains to the northeast of the pump station. View of manure solids from past releases from the South Side Pump Station and manure collection system main pipeline clean-outs.



Photograph #30. Clean-out for Building H entering main pipeline for manure collection system. This clean-out had a recent manure release that contributed to the manure solids found in Photograph #29.



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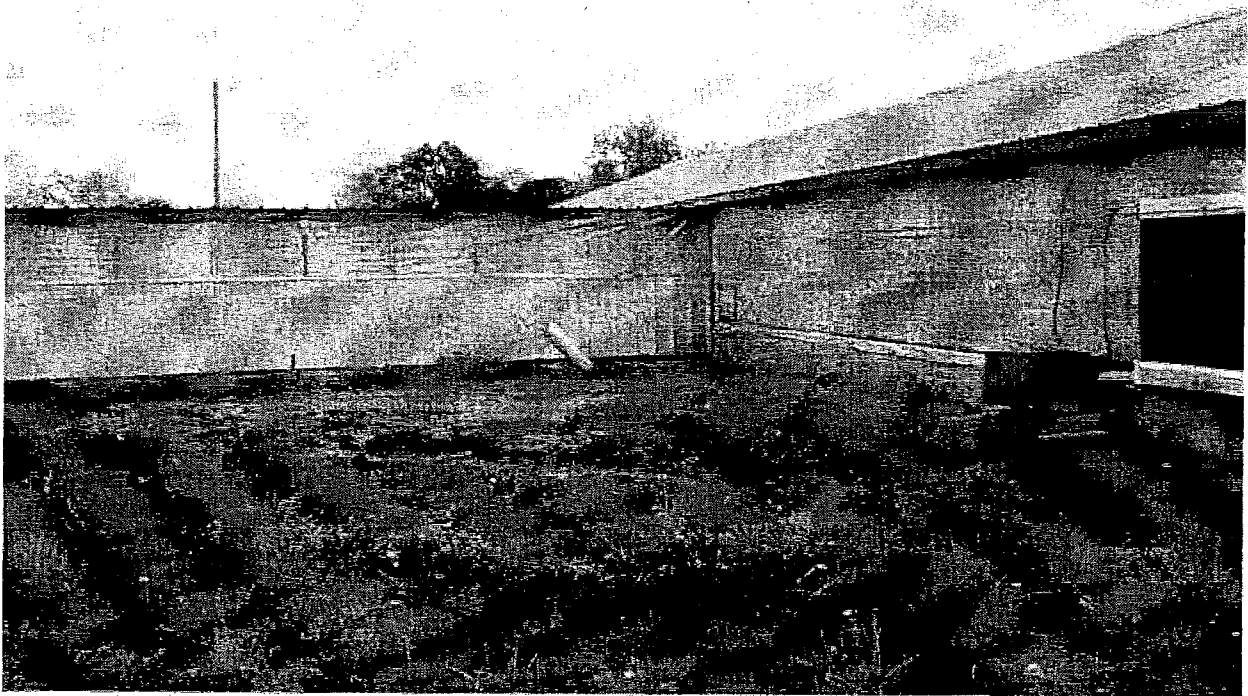


Photograph #31. Recent manure release from Building H clean-out pipe being plugged, located to the east of the building. View is east.

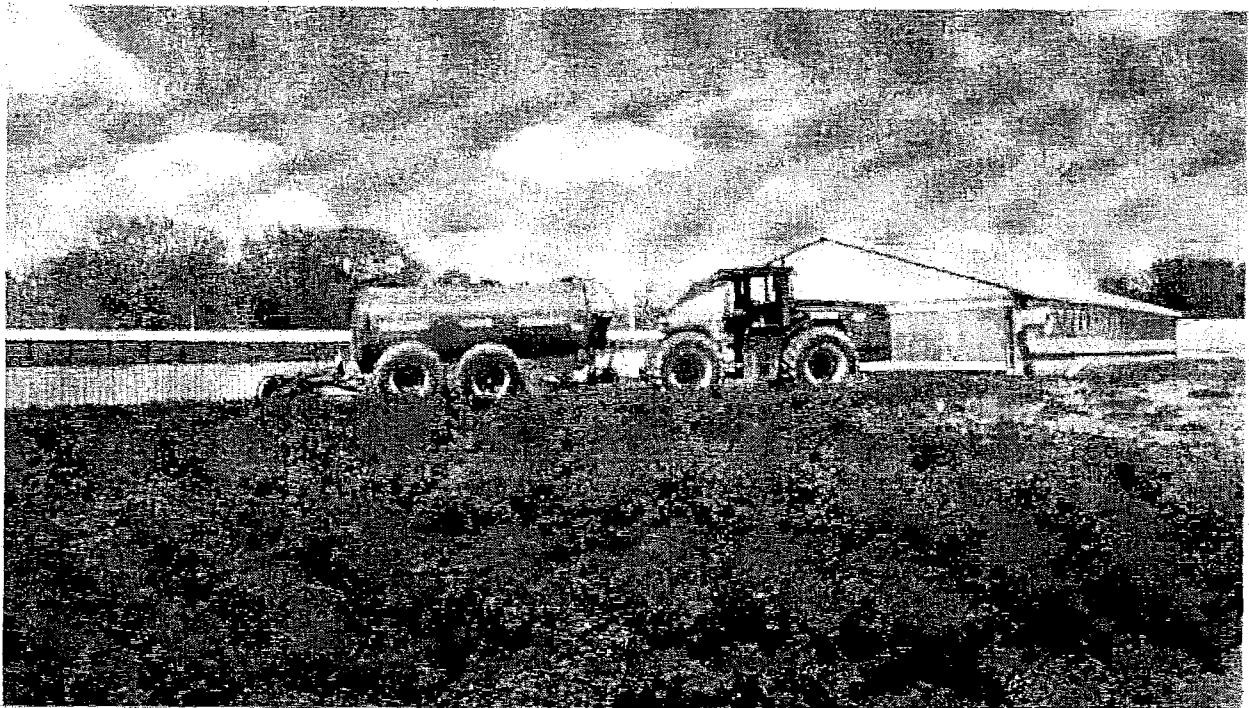


Photograph #32. Building G clean-out pipe recently extended after the clean-out had manure release occur. This clean-out pipe still does not appear to be at the correct elevation to prevent another manure release.

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Photograph #33. Recently extended clean-out on the south-west side of the site.



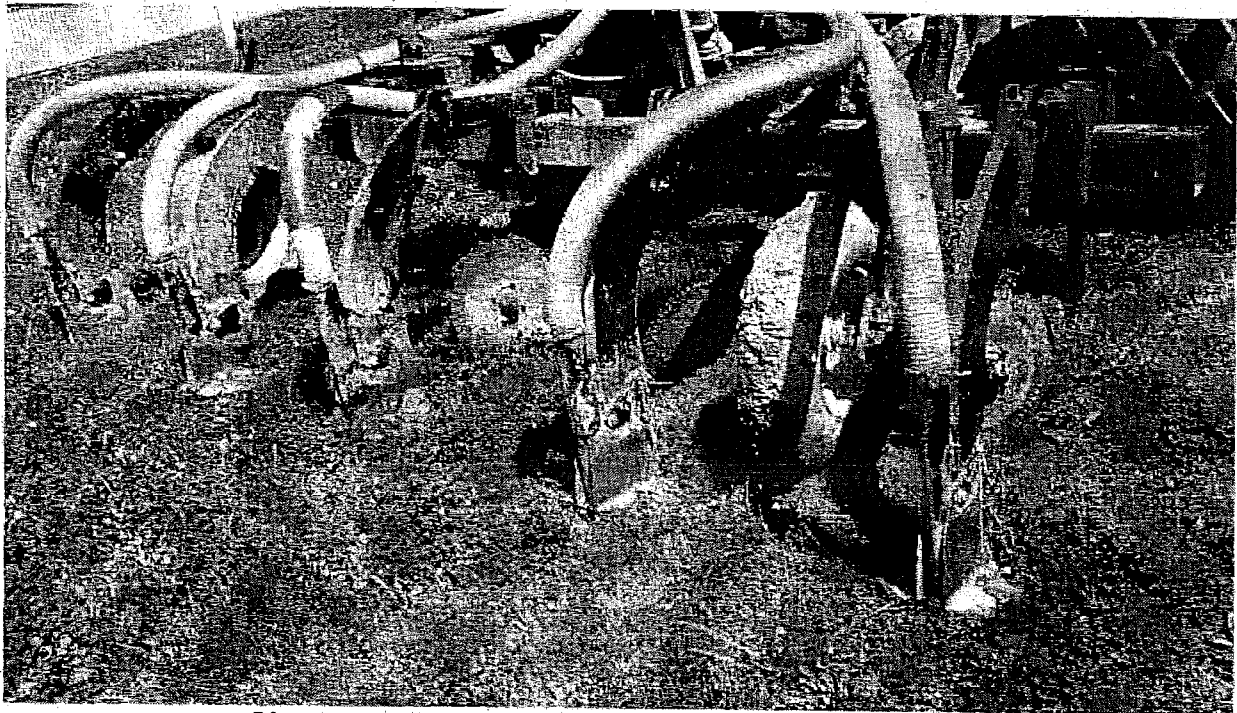
Photograph #34. A 9280 Versatile Ford tractor hooked up to a Blazer 6000 Gallon Magnum tank attached to injection equipment with 5 injection knives.



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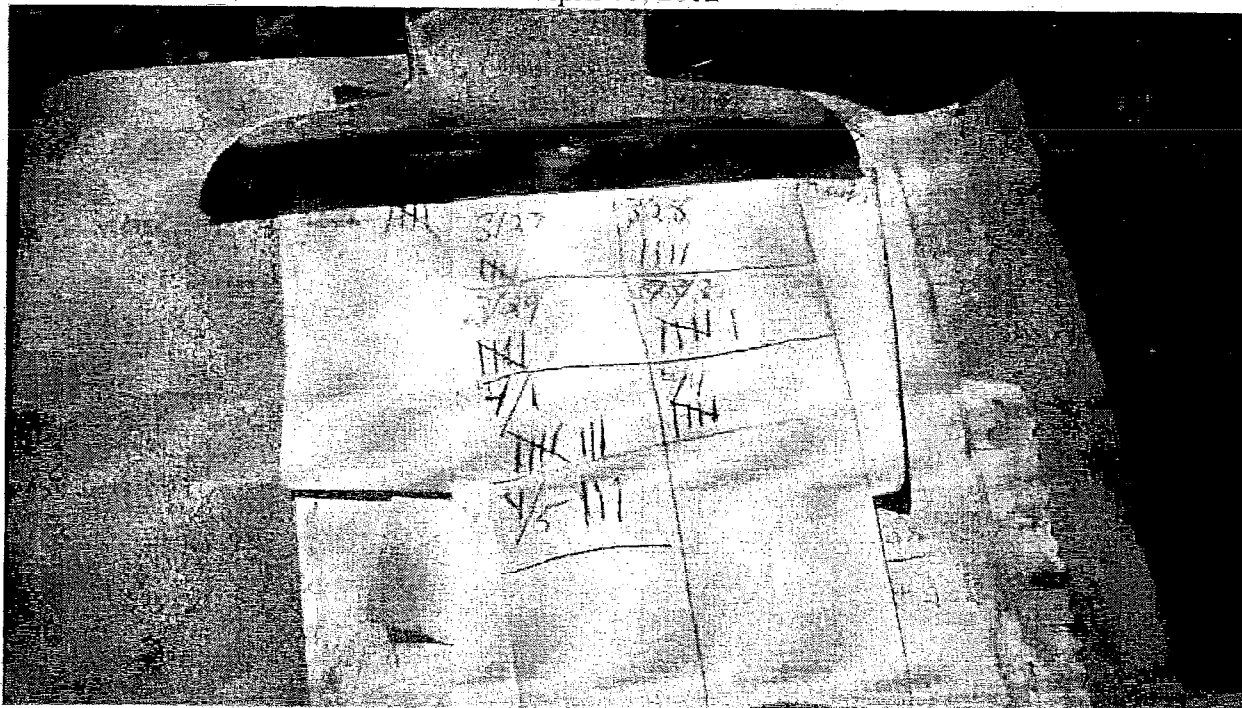


Photograph #35. The Blazer 6000 Gallon Magnum tank.



Photograph #36. Close-up of the with 5 injection knives.

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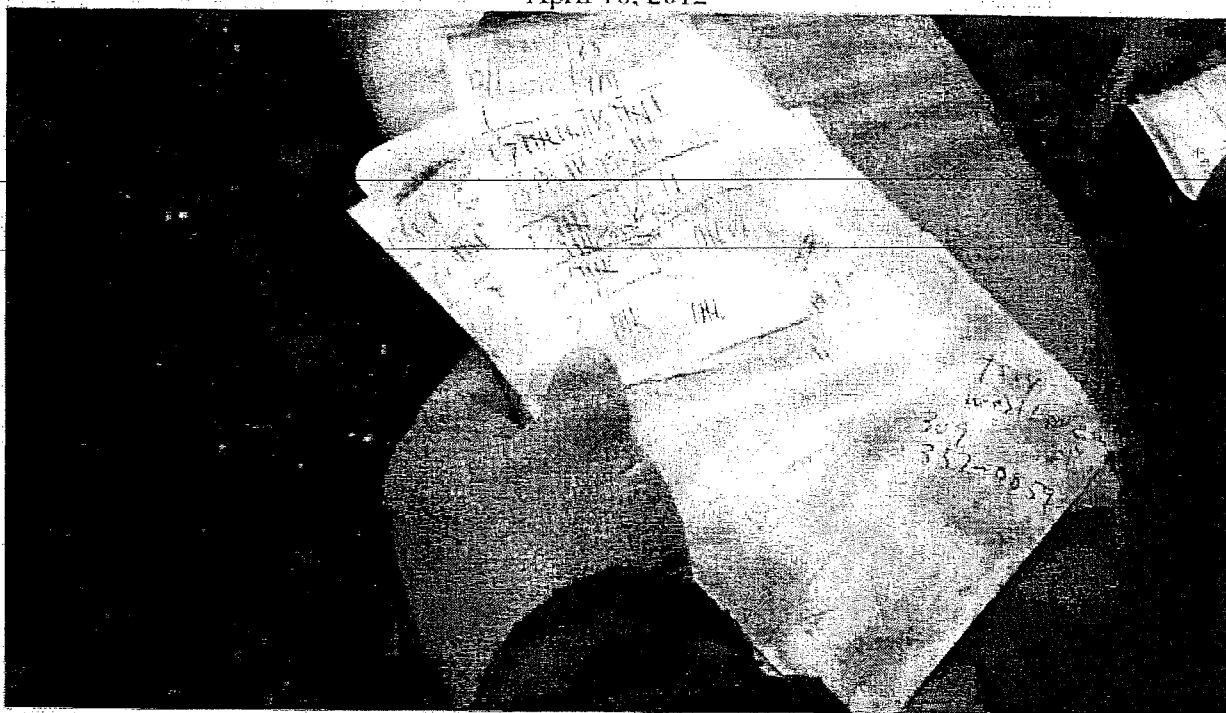


Photograph #37. Manure application records kept inside the tractor cab.



Photograph #38. Manure application records kept inside the tractor cab.

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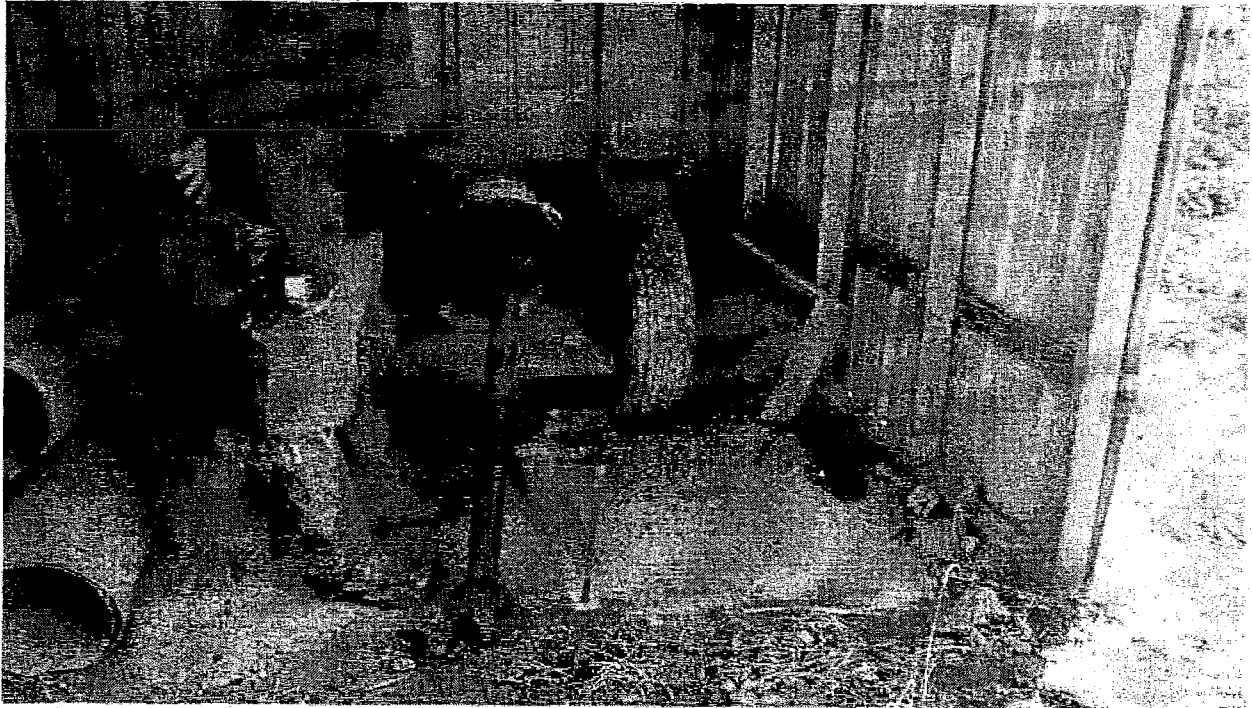


Photograph #39. Manure application records kept inside the tractor cab.

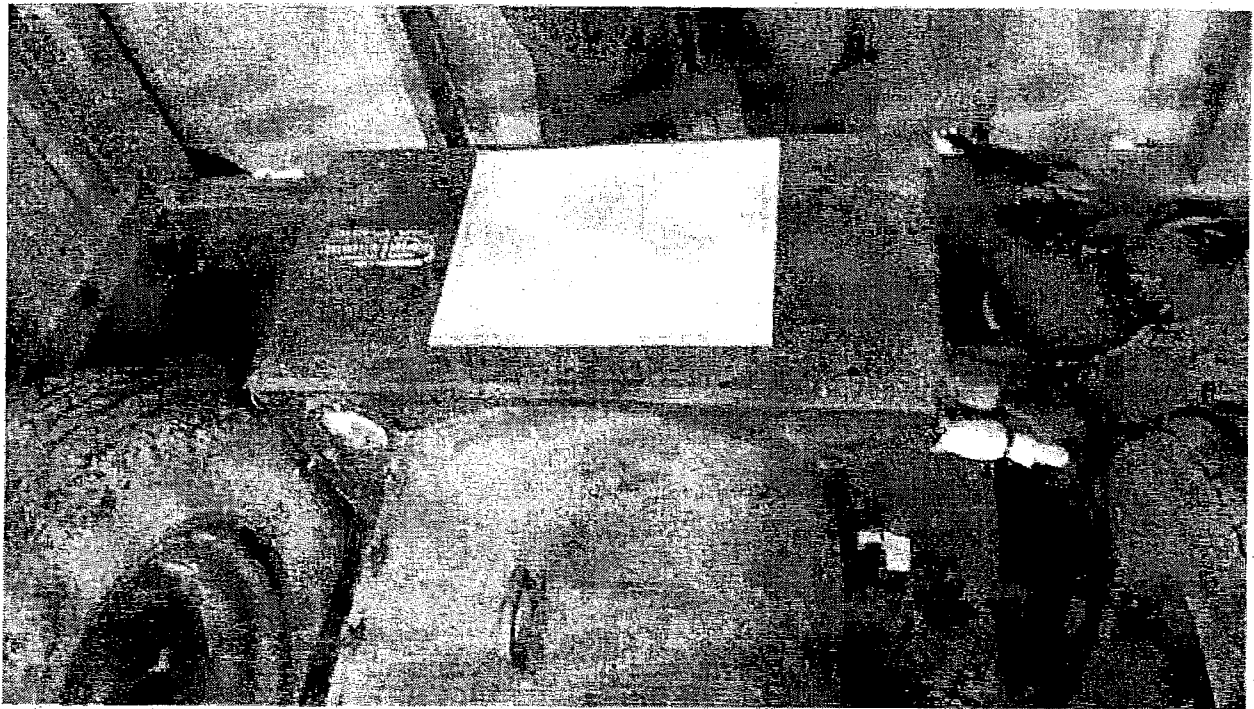


Photograph #40. Manure application records kept inside the tractor cab.

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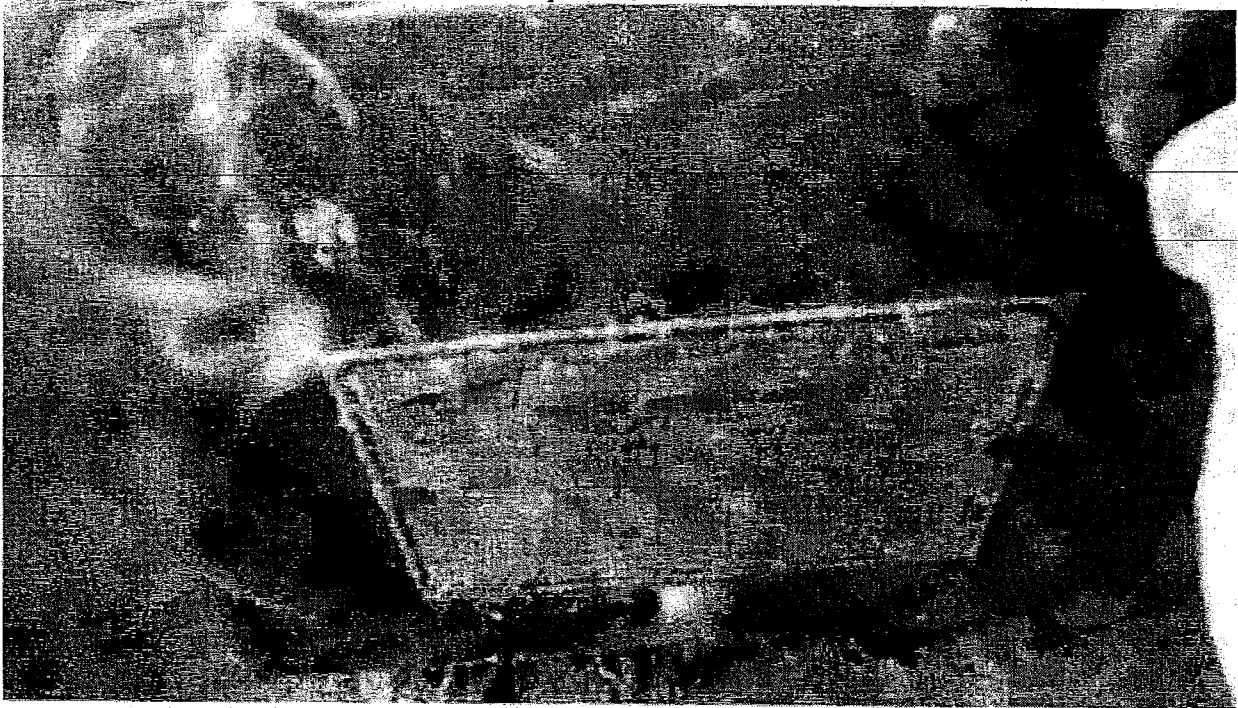
Photograph #41. One of the PTO driven generators on-site.



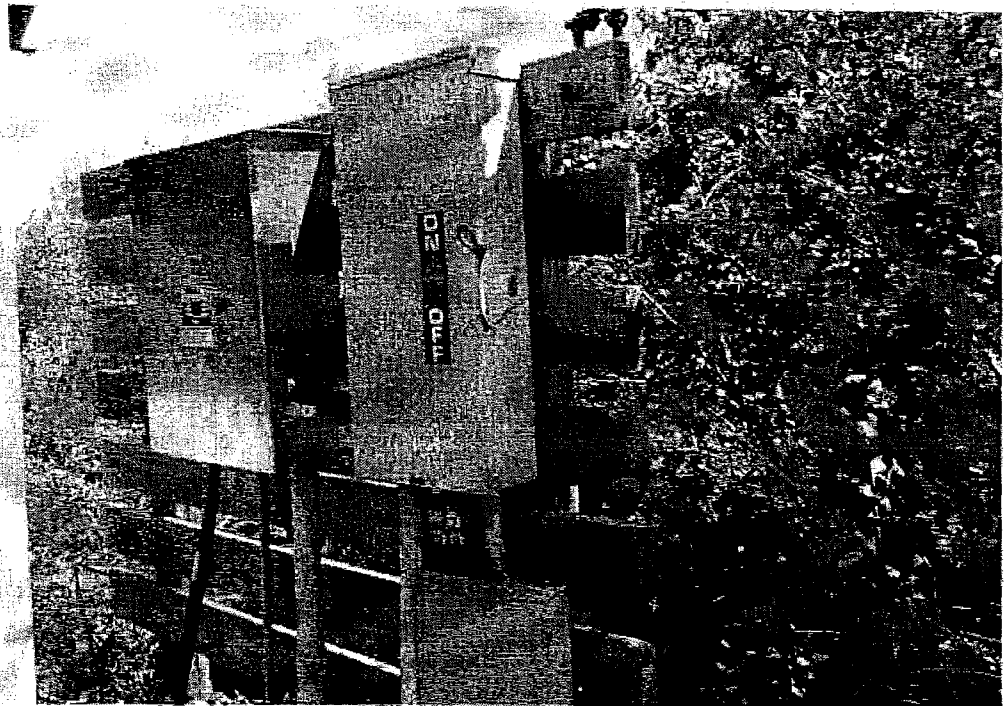
Photograph #42. One of the PTO driven generators on-site.



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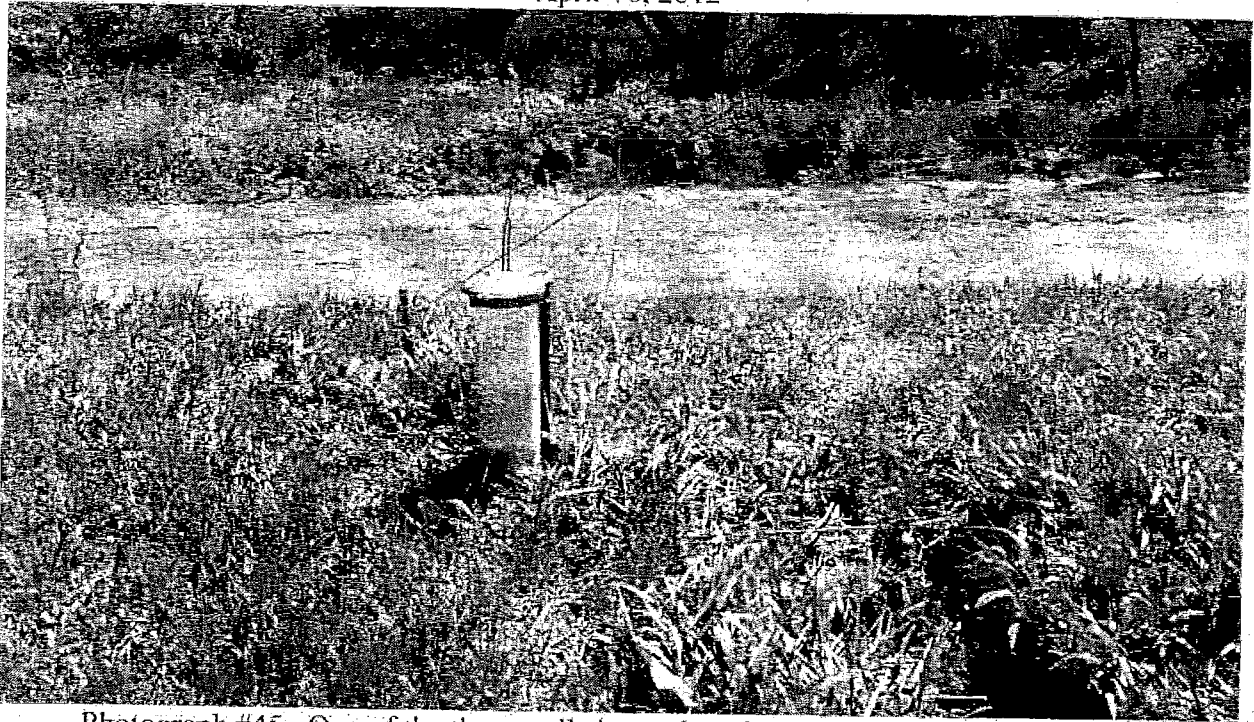


Photograph #43. One of the PTO driven generators on-site.

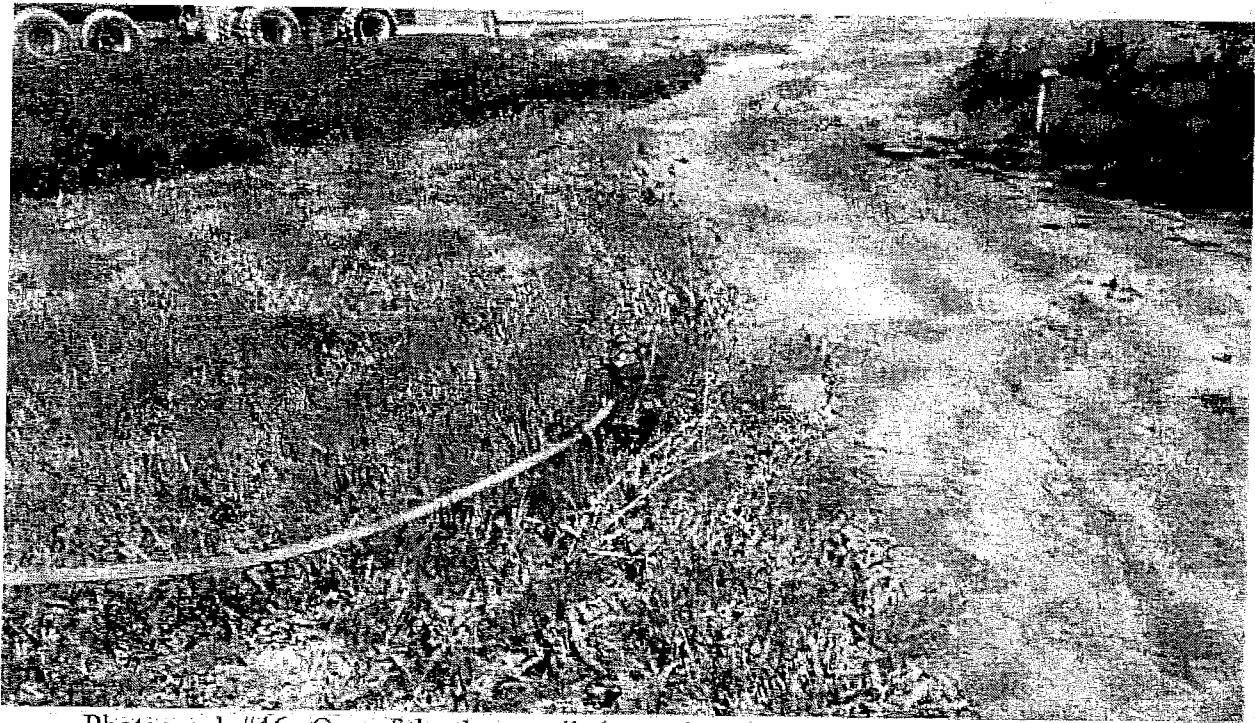


Photograph #44. Manual power transfer switch for the one of the PTO generators on-site.

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Photograph #45. One of the three wells located on the southeast side of the facility.



Photograph #46. One of the three wells located on the southeast side of the facility.



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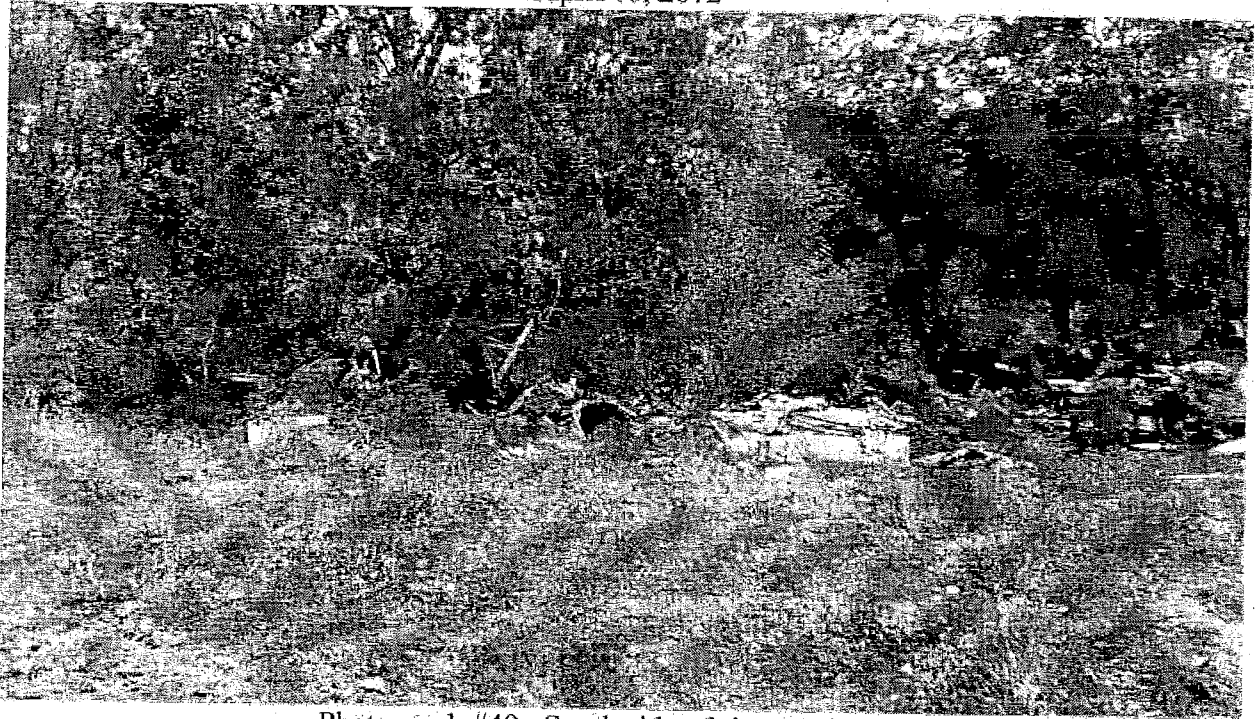


Photograph #47. South side of the new addition on Building A. View is north.



Photograph #48. South side of site debris pile.

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Photograph #49. South side of site debris pile.



Photograph #50. South side of site debris pile.



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

## Livestock Facility Inspection Checklist

### GENERAL INFORMATION

#### TYPE OF INSPECTION:

☒ CAFO ☐ COMPLAINT ☐ RECONNAISSANCE ☐ ERU FOLLOW UP ☐ OPERATOR REQUEST ☐ OTHER

FACILITY NAME (LLC, Inc., Corp, Partnership, sole proprietorship, etc.)

**Hollis Shafer Swine Farm (or Hollis Shafer Sow Facility)**

INSPECTION DATE

**April 16, 2012**

ARRIVAL TIME

**~10:30 AM**

ADDRESS

**785 N. Taylor Lane**

INSPECTOR(s)

**E. Ackerman & S. Fower**

DEPARTURE TIME

**~1:00 PM**

CITY

**Astoria**

STATE

**IL**

ZIP CODE

**61501**

ACCOMPANIED BY (if applicable)

**Chris Cooper**

COUNTY

**Fulton**

SECTION

**31**

TOWNSHIP

**T3N**

RANGE

**R1E**

POLITICAL TOWNSHIP

**Astoria**

TEMPERATURE

**~52 F**

PRECIPITATION TYPE

**Sunny/Cloudy**

Facility Owner(s):

NAME

**Hollis Shafer**

CONTACTED

☒ YES ☐ NO

PHONE

Exemption 6 and Exemption 7C

MOBILE

☐ Same as Facility

ADDRESS

Exemption 6 and Exemption 7C

CITY

Exemption 6 and Exemption 7C

STATE

Exemption 6 and Exemption 7C

ZIP CODE

Exemption 6 and Exemption 7C

NAME

CONTACTED

☐ YES ☐ NO

PHONE

Exemption 6 and Exemption 7C

MOBILE

ADDRESS

Exemption 6 and Exemption 7C

CITY

Exemption 6 and Exemption 7C

STATE

Exemption 6 and Exemption 7C

ZIP CODE

Exemption 6 and Exemption 7C

Facility Operator(s):

NAME

**Steve Whittig**

CONTACTED

☒ YES ☐ NO

PHONE

Exemption 6 and Exemption 7C

MOBILE

☐ Same as above

ADDRESS

Exemption 6 and Exemption 7C

CITY

Exemption 6 and Exemption 7C

STATE

Exemption 6 and Exemption 7C

ZIP CODE

Exemption 6 and Exemption 7C

NAME

**Chris Cooper**

Exemption 6 and Exemption 7C

CONTACTED

☒ YES ☐ NO

PHONE

Exemption 6 and Exemption 7C

MOBILE

ADDRESS

Exemption 6 and Exemption 7C

CITY

Exemption 6 and Exemption 7C

STATE

Exemption 6 and Exemption 7C

ZIP CODE

Exemption 6 and Exemption 7C

### NPDES PERMIT INFORMATION (If no NPDES Permit, skip this section)

1. What type of NPDES permit has been issued?

☐ Individual NPDES Permit

☐ General NPDES Permit

NPDES #

2. What date was the NPDES permit issued?

3. What date does the NPDES permit expire?

4. Is a copy of the NPDES permit onsite?

☐ YES

☐ NO

5. Permitted number of animals (no. & specie)?

6. Does the NPDES Permit contain a compliance schedule?

☐ YES

☐ NO

7. Have there been any changes made to the production area since the permit was issued?

☐ YES

☐ NO

If "YES", provide a detailed description of those changes.

**None**

**LAND APPLICATION/NUTRIENT MANAGEMENT**

1. How many TOTAL acres are available for land application?	<b>18 Tillable owned, ~4,300 leased</b>	
2. How many acres are READILY available for land application at the time of inspection?	_____ acres	
3. Estimated annual quantities of liquid waste _____	gallons	
4. Estimated annual quantities of solid waste _____	tons	
5. Does the facility have a contractor perform land application? If "YES", Name of Contractor: <b>Matt Bradshaw -Twin Valley Pumping</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
6. What type of land application equipment is available to the facility? <input checked="" type="checkbox"/> Umbilical Injection <input checked="" type="checkbox"/> Honeywagon Injection <input type="checkbox"/> Honeywagon Surface <input type="checkbox"/> Irrigation <input type="checkbox"/> Rotational Gun <input type="checkbox"/> Manure Spreader <input type="checkbox"/> Vegetative Filter <input type="checkbox"/> Other _____		
7. Does the facility calibrate the land application equipment? If "YES", What method is used?  <b>Majority of Land application is Contracted Out.</b>	<input type="checkbox"/> YES	<input type="checkbox"/> NO
8. Does the facility land apply within the 150 foot setback from any water well? If "YES", Explain  <b>Majority of Land application is Contracted Out.</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
9. Does the facility land apply within the 200 foot setback from any surface water? If "YES", Explain  <b>Majority of Land application is Contracted Out.</b>	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
10. Does the facility land apply near any residences? If "YES", Explain  <b>Majority of Land application is Contracted Out.</b>	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
11. Is livestock waste transferred off-site to another party? If "YES", Are records of manure transfers kept? If "YES", Ask to see records	<input checked="" type="checkbox"/> YES <input type="checkbox"/> YES	<input type="checkbox"/> NO <input checked="" type="checkbox"/> NO
12. Does the facility have a current NMP or CNMP? If "YES", Does the facility maintain a copy of the nutrient management plan (NMP) onsite?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> YES	<input type="checkbox"/> NO <input type="checkbox"/> NO
13. Does the NMP reflect the current operational characteristics (number of animals, cropping, etc.)?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
14. Are the number of acres owned/leased consistent with those in the NMP?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
15. Is manure and wastewater being applied in accordance with setback/buffer requirements of the NMP?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
16. Are all of the records identified in the NMP being maintained and kept current?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
17. Are records being maintained at the required frequency?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
18. Are records being maintained onsite for the period required by NMP and/or NPDES permit?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
19. Is the NMP adequately addressing the storage, handling and application of manure and wastewater to prevent discharges to waters of the U.S.?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

**LIVESTOCK FACILITY DESCRIPTION**

Type of Animals	Number of Animals (currently)	Animal Capacity	Type of Confinement	Number of Structures
SWINE > 55 LBS      Sows	~2,350	~2,400	TOTAL CONFINEMENT BDG	11
SWINE < 55 LBS      Piglets	~4,000	~4,000	TOTAL CONFINEMENT BDG	
SWINE > 55 LBS      Gilts	~150	~150	TOTAL CONFINEMENT BDG	
SWINE > 55 LBS      Boars	~4	~8	TOTAL CONFINEMENT BDG	
<b>Total</b>	<b>~2,504</b>	<b>~2,558</b>		<b>15</b>
<b>(No Piglets)</b>				

Does the facility have an Illinois Certified Livestock Manager (300 or greater animal units)? ☐ N/A ☐ YES ☐ NO

If greater than 1000 animal units but less than 5000 animal units, does the facility have a waste management plan? ☐ N/A ☒ YES ☐ NO

If greater than 5000 animal units, has the facility submitted a waste management plan to IDOA for review? ☒ N/A ☐ YES ☐ NO

Does the facility have any other locations under common ownership, or where equipment and/or manure is shared, or where the other site shares land application sites? If so, put names and addresses below. ☐ YES ☐ NO

**This facility has the majority of the manure land applied by a contractor, but the facility does perform some of the land application itself and has its own land application equipment. The land application is done on neighboring land that the facility does not own. This arrangement has worked well in the past, but during the inspection there appeared to be some neighbors no longer allowing the manure to be land applied to some of the land. Since this facility has so many neighbors with many surrounding acres at this time this facility has enough land available.**

**LIVESTOCK WASTE STORAGE**

1. Does the facility have any existing livestock waste containment system? ☒ YES ☐ NO  
If NO, then proceed to question 10.

2. General description of the waste containment system (include solid and liquid manure handling, mortality, and feed storage areas).

**Please see the attached inspection report from April 16, 2012.**

Type of Storage	Total Storage Capacity (Specify Units)
<input checked="" type="checkbox"/> Anaerobic Lagoon	<b>1-For emergency storage, ~750,000 gal.</b>
<input type="checkbox"/> Covered Lagoon	
<input type="checkbox"/> Holding Pond	
<input type="checkbox"/> Above Ground Storage Tank ("Slurrystore")	
<input checked="" type="checkbox"/> Below Ground Storage Tank	<b>2-One no longer used, one large manure storage basin</b>
<input type="checkbox"/> Settling Basin	
<input type="checkbox"/> Roofed Storage Shed	
<input type="checkbox"/> Concrete Pad	
<input type="checkbox"/> Impervious Soil Pad	
<input checked="" type="checkbox"/> Underfloor Pits	<b>shallow pull-plug pits and 1-10' deep total pit</b>
<input type="checkbox"/> Anaerobic Digester	
<input type="checkbox"/> Manure Stacks	
<input type="checkbox"/> Vegetative Filter	
<input type="checkbox"/> Other _____	
<input type="checkbox"/> None	

3. Do the storage structures have depth markers or staff gauges? ☐ YES ☒ NO

4. Are levels of manure in the storage structures recorded and records kept? ☐ YES ☒ NO

5. Do the storage structures have adequate freeboard? ☐ YES ☒ NO

6. Estimated final stage storage structure freeboard **lagoon~1.5' Large storage basin~6'** in. of total depth \_\_\_\_\_ in \_\_\_\_\_

7. Do facility personnel perform routine visual inspections of the storage structures? ☐ YES ☐ NO

8. Are the routine visual inspections documented? ☐ YES ☒ NO

9. Does the system have an outfall or discharge point? ☒ YES ☐ NO

If "YES", please provide a description (overflow pipe, spill way, etc. Include a description the area receiving the discharge).

**The north side mortality compost unit had a drainage tile that was installed to drain leachate from the compost unit and discharge the leachate into the ground reported to be approximately 100 feet to the east of the unit. Manure was recently released from south side pump station.**

10. Are there any portions of the production area where runoff is not controlled? ☒ YES ☐ NO

If "YES", provide a detailed description of the area(s) of concern:

**Mortality Compost Units had leachate being released from them.**

**South Side Pump Station had recently released manure and had manure solids near the pump station. Some of the clean-outs on the main pipeline for manure transfer had released manure.**

**Old Feed is being placed in a pile in the woods, not being disposed of properly.**

#### **MORTALITIES MANAGEMENT**

1. How are mortalities managed? (Composted, buried, burned, rendering service, other)

**Composted in two mortality compost units.**

2. Are mortalities documented and are records kept? ☐ YES ☐ NO



**FACILITY WATER SOURCES**

1. What type of method is used to provide drinking water for the animals?

☐ Overflow waters   ☐ Tip Tanks   ☒ Nipple waters   ☐ Water Bowls   ☐ Other trough

2. How is the water for animals obtained?

☒ Community PWS   ☒ On-Site Well   ☐ On-Site Impoundment   ☐ Other 3-deep wells

3. Is a mist cooling system used? ☒ YES   ☐ NO

How is mist water contained?

**Recycled in the system. Some is being released, but did not appear to be entering the building pits.**
**DAIRY OPERATION (If No Dairy, skip this section)**

1. How many times per day are cows milked? \_\_\_\_\_

2. Describe how the dairy's non-contact cooling water is contained (Example: it is reused for drinking water for the animals).

**None**

3. Describe how the milking parlor is cleaned (hose or flush) and where the process wastewater goes and how it is contained.

**None**

4. Describe how the tank(s) are washed and where the process wastewater goes and how it is contained.

**None**

5. Describe where process wastewater from the plate cooler goes and how it is contained.

**None**
**BEDDING (If No Bedding, skip this section)**

1. Describe what type of bedding is used for the animals.

**None**

2. Describe how bedding is collected and how often.

**None**

3. What is done with the used bedding? ☐ Reused   ☐ Land Applied

**MANURE COLLECTION**

1. How is manure collected?

☒ Under Floor Pit☐ Scraped: ☐ Automatic ☐ Manual☐ Flush☐ Solids Separator☒ Other: **pull-plug into either lagoon or pump station that pumps the manure into the large below ground concrete storage tank.**

2. If manure collection system uses either clean or reused water to flush, describe where this water goes and how it is contained.

**None****FEED STORAGE CONTAINMENT**

1. Describe how feed (silage, hay, etc) is contained.

☒ Bulk Bins☐ Silage Pit☐ Ag Bags☐ Hay: ☐ Barn ☐ Outdoor☐ Other: \_\_\_\_\_

2. Describe how feed (silage, hay, etc) runoff is contained.

☒ Not Applicable – Feed totally enclosed☒ Other: **Waste feed is not being properly contained.**☐ None**RECEIVING SURFACE WATERS**

1. Provide a description of the flow path from the facility to the nearest named surface water:

**Unnamed tributary to Sugar Creek which is tributary to the Illinois River. (Stream Code: Unnamed tributary to DH).**

2. What is the name of the receiving stream?

**Unnamed tributary to Sugar Creek**3. Status of the named surface water: ☒ Intermittent ☐ Perennial4. Are any unnatural bottom deposits observed in the receiving stream: ☐ YES ☐ NOIf "YES", provide a description of the deposits: **Stream was observed with dark colored liquid.**

### DISCHARGES

1. Have there been any documented discharges of livestock waste to surface water <b>in the past year</b> ? If "NO" proceed to question 2.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
a. If "YES", specify the date(s). _____		
b. What was the reason for the discharge?		
c. Was the discharge the result of a 25 year-24 hour rainfall event?		
		<input type="checkbox"/> YES <input type="checkbox"/> NO
d. What was the precipitation amount? (if applicable)		
e. Was IEMA notified of the discharge?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
f. Has the facility taken corrective action to remedy the situation which caused the discharge(s)?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If "YES", describe actions taken: <b>None</b>		
2. Is the facility currently discharging livestock waste from the production area? If "NO" proceed to next section.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
a. Was the discharge the result of a 25 year-24 hour rainfall event?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
b. What was the precipitation amount? (if applicable)		
c. What is the reason for the discharge? <b>Pump station management, allowing manure to be directly discharged from the pump station to clean out the pipelines and to protect the pumps in the manure collection system. Manure Collection Clean-outs releasing manure. Leachate from the mortality compost units.</b>		
d. Were water quality samples taken?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
e. If "YES", how many? _____		
f. What parameter(s) tested? <input type="checkbox"/> pH <input type="checkbox"/> Ammonia <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Phosphorus <input type="checkbox"/> BOD <sub>5</sub> <input type="checkbox"/> Total Susp Solids <input type="checkbox"/> Fecal <input type="checkbox"/> Diss O <sub>2</sub> <input type="checkbox"/> Other _____		

### BIOSECURITY – Inspection Activities

1. Were biosecurity measures discussed with the facility prior to inspection?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
2. Has there been 24-hours downtime between inspections for all IEPA personnel present?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
3. Was the order of inspection conducted from high risk to low risk?	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. Did all personnel stay outside livestock management and livestock waste handling facilities as defined in 35 IAC 501.285 and 35 IAC 501.300? If "YES" skip to question 7.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

### BIOSECURITY – Personal Protection Equipment

5. Was sanitary footwear donned prior to entering the livestock management/waste handling facility(s)?	<input checked="" type="checkbox"/> N/A Did not Enter	<input type="checkbox"/> YES	<input type="checkbox"/> NO
6. Were disposable coveralls donned prior to entering the livestock management/waste handling facility(s)?	<input checked="" type="checkbox"/> N/A Did not Enter	<input type="checkbox"/> YES	<input type="checkbox"/> NO
7. Was sanitary footwear used during the inspection?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
8. Was disposable sanitary outerwear disposed at the facility?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	

**BIOSECURITY – Vehicle**

- |  |   |   |
|--|---|---|
| 9. Was the vehicle parking location discussed with the facility prior to inspection?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO   |
| 10. Was the vehicle washed since the inspection prior to current? If "YES" skip to question 12.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO                              |
| 11. Was the vehicle parked >300-feet from the livestock management/waste handling facility? Explain where vehicle was parked:                        | <input type="checkbox"/> N/A            | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| <b>Vehicle was parked on public roadway, N. Taylor Lane, located next to the facility. The facility was fine with this location for the vehicle.</b> |   |   |
| 12. Was IEPA vehicle used on site?   | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO                              |
| 13. Was facility vehicle used on site?   | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO                              |

**BIOSECURITY – Inspection Equipment**

- |   |   |   |
|---|---|---|
| 14. Was all equipment wiped down with anti-bacterial wipes?                                 | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO                              |
| 15. Was sample cooler kept inside vehicle during inspection? If "YES" skip question 16.     | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO   |
| 16. Was sample cooler wiped down with antibacterial wipes before placing back into vehicle? | <input type="checkbox"/> N/A            | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |

**OTHER COMMENTS/NOTES**

**New equipment (pens and paper) was used during the inspection.**

**Please reference Inspection Report dated April 16, 2012.**

Check all attachments: ☒ Narrative ☒ Photos ☒ Site Plan ☐ Sample Results

**INSPECTOR'S SIGNATURE****REPORT DATE****April 16, 2012.**

**CWA COMPLIANCE EVALUATION INSPECTION REPORT**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

**Purpose:**

Compliance Evaluation Inspection

**Facility:**

Hollis Shafer Swine Farm  
785 N. Taylor Lane  
Astoria, Illinois 61501

**NPDES Permit Number:**

N/A

**Date of Inspection:**

September 14, 2012

**EPA Representatives:**

Joan Rogers, Environmental Scientist  
Ben Atkinson, Agricultural Scientist

312-886-2785

312-353-8243

**State Representatives:**

None

**Facility Representatives:**

Steve Wittig

Exemption 6 and Exemption 7C

**Report Prepared by:**


Joan Rogers, Environmental Scientist  
rogers.joan@epa.gov

312-886-2785

**Report Date:**

January 9, 2013

**Inspector Signature**

 1/15/13

## **BACKGROUND**

The purpose of this report is to describe, evaluate and document the Hollis Shafer Swine Farm's compliance with the Clean Water Act (CWA) at its Astoria, Illinois facility on September 14, 2012.

The Hollis Shafer Swine Farm is a swine farrow to wean operation with 3,000 swine weighing less than 55 pounds and 2,500 swine weighing greater than 55 pounds. Based on the number of swine greater than 55 pounds, the Hollis Shafer Swine Farm is considered a large Concentrated Animal Feeding Operation.

The facility sits on a watershed boundary. Precipitation landing on most of the northern half of the facility flows to the west to an adjacent intermittent unnamed tributary and then 0.90 miles to perennial Sugar Creek. Precipitation landing on most of the southern half of the facility flows to the east approximately 0.2 miles until it reaches an intermittent unnamed tributary to the east of the facility. This intermittent unnamed tributary flows approximately 1.1 miles to the south where it then flows into perennial Sugar Creek. Sugar Creek flows approximately 18 miles south to the Illinois River which is a Traditional Navigable Water.

On April 16, 2012, the Illinois Environmental Protection Agency (IEPA) conducted an inspection at the Hollis Shafer Swine Farm. During the inspection, the IEPA inspectors observed several areas of concern. The areas of concern were issues at the mortality compost units, the clean-outs for the manure collection system, the south side pump station, the livestock lagoon, the waste feed handling and the proper disposal of debris. Since discharges were observed by IEPA inspectors, it was recommended that the facility apply for a National Pollutant Discharge Elimination Permit (NPDES).

## **SITE INSPECTION**

<b>Arrival Time:</b>	10:30 A.M.
<b>Exit Time:</b>	1:51 P.M.
<b>Temperature:</b>	Approximately 62°F
<b>Precipitation:</b>	None
<b>Presented credentials?</b>	Yes
<b>Credentials presented to whom?</b>	Steve Wittig
<b>EPA vehicle parked in approved location?</b>	Yes
<b>Location where EPA vehicle was parked?</b>	North of the office
<b>Disposable boots worn?</b>	Yes
<b>Other bio-security measures taken during the site inspection:</b>	None



**Records Review** (The following Records Review tables reflect information provided before the walk-through of the facility, unless otherwise noted.)

<b>Checklist(s) Used</b>
R5 CAFO Inspection Checklist
Federal CAFO Nutrient Management Plan Checklist
<b>Facility Documents Reviewed:</b>
Comprehensive Nutrient Management Plan (CNMP)

**Facility Description**

Type of Animal	Number of Animals	Capacity	Type of Confinement
Swine < 55 pounds	3000	3000	Total confinement in barns
Swine > 55 pounds	2500	2500	Total confinement in barns
<b>Minimum Number of Animals in previous 5 years:</b>			Approximately the same number as listed above with perhaps 100 less sows.
<b>Maximum Number of Animals in previous 5 years:</b>			Approximately the same number as listed above with perhaps 100 more sows.
<b>Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:</b>			3000 Swine < 55 pounds 2500 Swine > 55 pounds
<b>Amount of Manure Generated per year:</b>			Unknown
<b>(Illinois Only) Name of Certified Livestock Manager for facility: (if 300 animal units or greater):</b>			Brian Bradshaw of Win Productions
<b>Does the facility have an NPDES Permit?</b>			No, but the facility is in the process of applying for one based on IEPA requirements after an inspection in April 2012.
<b>Other facilities under common ownership (name and address):</b>			
None. The facility was, until recently, solely owned by Mr. Hollis Shafer. Recent ownership changes have occurred and the facility is now owned by a partnership of which Mr. Hollis Shafer is one of the partners.			

### Livestock Waste Storage

Type of Storage	Storage Capacity	Type of Liner	Depth Markers Present	Last Time Waste was Removed	Days of Storage
Concrete Manure Storage Pond (Concrete Pit)	1.7 million gallons	Concrete	Yes	March 2012	Unknown
Earthen Manure Holding Pond (Emergency Pond)	1.7 million gallons	None, but dug into clay	No	Not regularly used	Unknown
Concrete pits below barns	Varies	Concrete	No	Regularly pumped to Concrete Pit	Varies
Total of all under-barn pits and concrete storage pond	Greater than 1.7 million gallons	Concrete	Yes	March 2012	365 days
<b>Records at site of storage structure design?</b>				No	
<b>Additional Information:</b>				The facility barns and earthen pond date to approximately 1994-1996.	

### Livestock Waste Management

<b>Describe the way manure is collected and disposed of at the facility:</b>	Manure flows into the under-barn pits and it then gravity flows after a pull-plug is pulled to one of two pump stations. It is then pumped to the Concrete Pit where it is stored until it is land applied.
<b>Describe the way used bedding is collected and disposed of at the facility:</b>	No bedding is used at the facility.
<b>Describe the way mortalities are managed at the facility:</b>	Mortalities are composted in one of the two Composting Units at the facility. Mulch is used in the composting process.
<b>Describe the way spilled drinking water is collected and disposed of at the facility:</b>	Spilled drinking water falls to the under-barn pits and is then managed with the manure.
<b>Describe the way mist cooling water is collected and disposed of at the facility:</b>	The facility utilizes cooling cells on a few of the barns. There is some water that leaks from the cells, but the water is clean water and it falls to the ground under the barn windows.
<b>Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:</b>	No large amounts of chemicals are stored at the facility.

<b>Describe the way water that has been used to wash/flush barns is collected and disposed of at the facility:</b>	Barns are power washed with rural well water which flows to the under-barn pits and is then managed with the manure.
<b>Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:</b>	Feed is stored in bulk bins. The spilled feed is cleaned from under the bins. All mixing of feed is done inside a barn.

#### **Land Application and Disposal of Manure and Process Wastewater**

<b>Number of acres available for land application</b>	1506.9 acres
<b>Are land application records kept?</b>	Yes but they were not available for review during the inspection.
<b>Is manure transferred off-site to another party?</b>	No

#### **Receiving Surface Waters**

<b>Describe the surface flow pathways:</b>	The facility sits on a watershed boundary. Precipitation landing on most of the northern half of the facility flows to the west to an adjacent intermittent unnamed tributary and then 0.90 miles to perennial Sugar Creek. Precipitation landing on most of the southern half of the facility flows to the east approximately 0.2 miles until it reaches a different intermittent unnamed tributary. The intermittent unnamed tributary on the east side flows approximately 1.1 miles to the south where it then flows into perennial Sugar Creek. Sugar Creek flows approximately 18 miles south to the Illinois River which is a Traditional Navigable Water.
<b>How many months out of the year is there flow in the nearest surface water pathway:</b>	Twelve months out of the year.
<b>Are there any storm water pathways entering the facility?</b>	No
<b>Are there any clean water ponds on site?</b>	Yes
<b>What is the name of the first Traditional Navigable Water (TNW) for surface flow from the facility?</b>	Illinois River
<b>Is the surface water pathway nearest to the facility considered to be ephemeral, intermittent or perennial?</b>	Intermittent

<b>Is the surface water pathway nearest to the facility considered to be impaired?</b>	The intermittent unnamed tributaries have not been assessed for impairments, but Sugar Creek is listed as impaired on the 303d list. Sugar Creek is listed as impaired for Fecal Coliforms in the stream reach segment that is closest to the confluence of the intermittent unnamed tributaries near the Hollis Shafer Swine Farm.
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#### **Nutrient Management Plan**

<b>NMP on site?</b>	Yes
<b>Date NMP Submitted:</b>	February 16, 2006
<b>Planner Name/Company:</b>	Terry Feldmann of Maurer Stutz Inc.
<b>Storage Description:</b>	Concrete holding pond, under-barn concrete pits and earthen holding pond.
<b>Amount of Manure Generated:</b>	Did not observe.
<b>Amount of Storage:</b>	Over 1.7 million gallons between the concrete under-barn pits and the concrete holding pond.
<b>Duration of Storage:</b>	365 days
<b>Amount of Spreadable Land:</b>	1506.9 acres
<b>Mortality Management Plan:</b>	Composting with sawdust
<b>Clean Water Diversion System:</b>	Did not observe.
<b>Direct Contact Prevention Plan:</b>	All animals are totally confined within the barns.
<b>Chemical Management Plan:</b>	Did not observe.
<b>Conservation Practices:</b>	Buffers and setbacks to wells, residences and surface waterways were listed.
<b>Manure Testing Protocols:</b>	Manure is to be tested annually.
<b>Soil Testing Protocols:</b>	Soil testing is to be done every four years.
<b>Land Application Protocols:</b>	Application rates are based upon crop uptake of nitrogen unless there are no soil tests, and then it is to be applied at a phosphorus removal rate. Manure is to be injected.
<b>Additional NMP comments:</b>	All fields have been identified as reasonably close to the site (<5 miles). These fields are planned to receive manure at a rate of no buildup, applying at P crop removal rates. This statement from the Farm Overview page of the CNMP is in contrast with the Manure Application Plan from Section 7 of the CNMP.

#### **Walkthrough of the Facility**

Following the records review, EPA walked north along Taylor Lane on the west side of the facility. The feed building and office were located on the north end of the facility.



IMGP1548: Tool Shed on left and Feed Bulk Bins by Feed Building.

Location: North side of facility

Facing: East

Date/Time: 09/14/12 10:59 A.M.



IMGP1549: Looking south along facility road.

Location: North side of facility

Facing: South

Date/Time: 09/14/12 10:59 A.M.

The first two buildings south of the office were the Gestation Buildings D and E. These two buildings are oriented east and west. Gestation Building E was not being utilized to

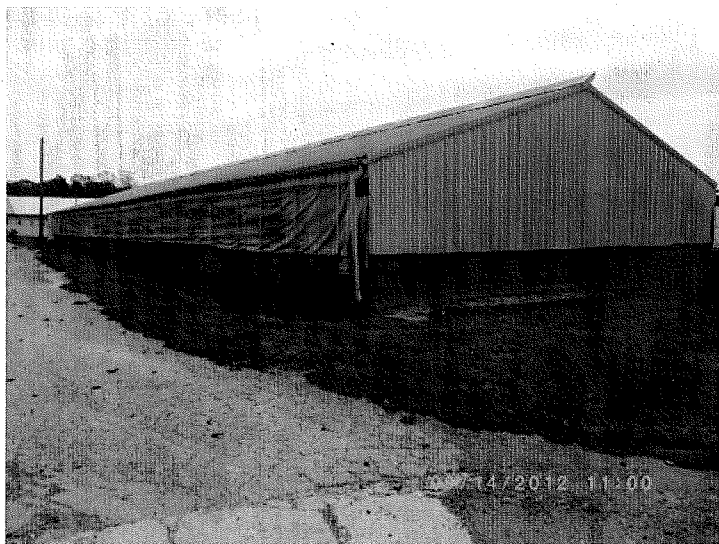
house animals on the day of the inspection. Most of the Gestation Buildings have two feet deep pits beneath the barn buildings.

A swine walkway was attached to the east side of the Gestation Buildings D and E. After approximately 95 feet, the swine walkway turned to the north and south and was attached to the Nursery as the first building to the south. Just to the south of the Nursery was the Concrete Pit. A yard was formed by the Gestation Building E on the north side, the swine walkway on the east side, the Nursery and the north end of the Concrete Pit on the south side. In the yard was the North Pump Station. The North Pump Station accepts flow from the north buildings and manure is then pumped to the Concrete Pit.

Storm water from north of the Gestation Building D and E flowed through a culvert pipe under the east/west portion of the swine walkway. Another storm water culvert pipe under the north/south portion of the swine walkway north of the Nursery conveyed storm water from east of the walkway to the west.

The two culvert pipes under the swine walkway conveyed storm water flow into the yard. The storm water flowed along the surface south and then flowed west where it accessed a culvert under Taylor Lane. The culvert discharged storm water on the west side of Taylor Lane into a gully which led to the intermittent unnamed tributary of Sugar Creek west of the facility.

Mr. Wittig stated that during a large precipitation event in early September, caused by the remnants of Hurricane Isaac, the barn pit for Gestation Building E had overflowed onto the ground. Mr. Wittig referred to the event as a “washout”. During the overflow of the pit beneath Gestation Building E, the manure was carried with the storm water to the intermittent unnamed tributary of Sugar Creek.



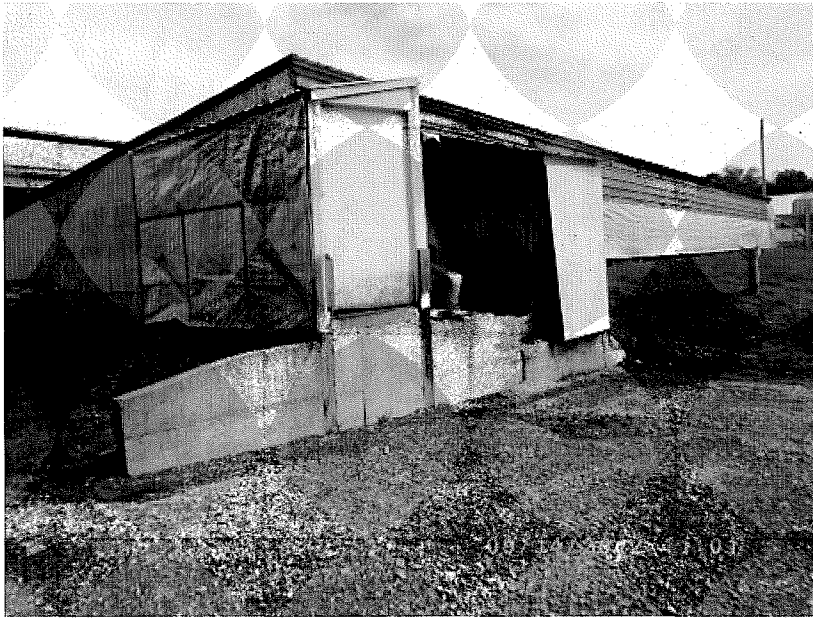
IMGP1550: Gestation Building D.

Location: Along Taylor Lane

Facing: Southeast

Date/Time: 09/14/12 11:00 A.M.



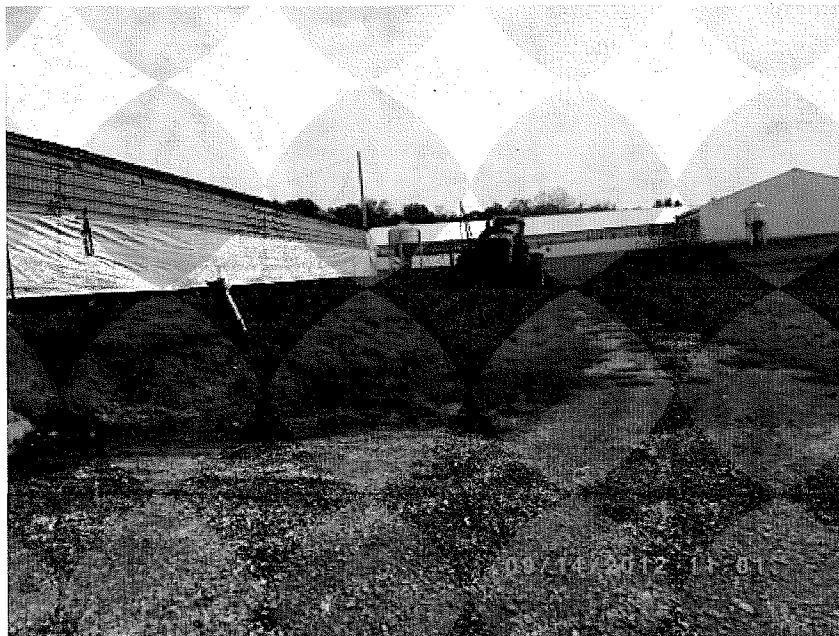


IMGP1551: Load in/out for Gestation Building E. A “washout” of manure from this building entered a storm water pathway. Manure solids are still visible around the barn entrance.

Location: Southwest corner of Gestation Building E

Facing: Northeast

Date/Time: 09/14/12 11:01 A.M.

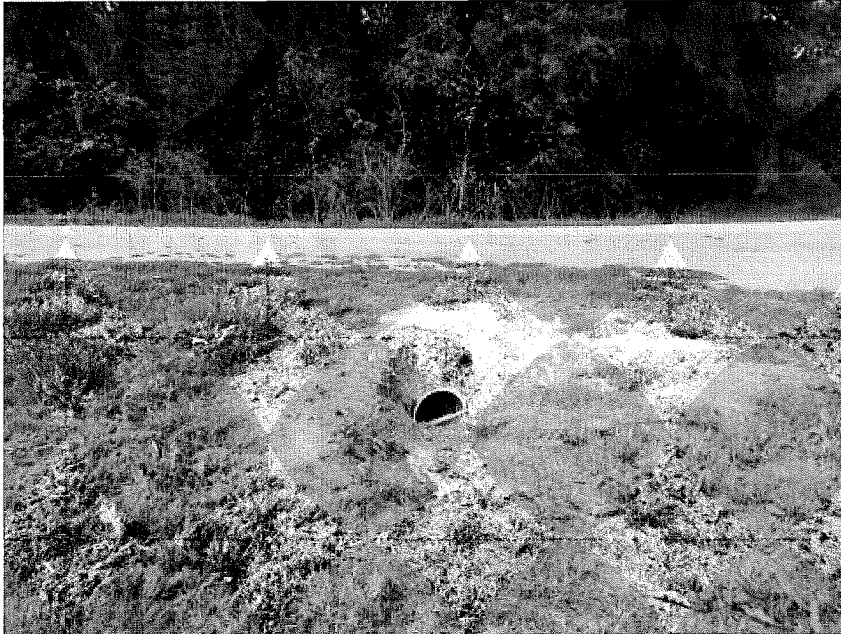


IMGP1552: Storm water from north of the Gestation D and E Buildings flows through the yard to a culvert under Taylor Lane. The manure that washed out from Gestation Building E would be transported with the storm water.

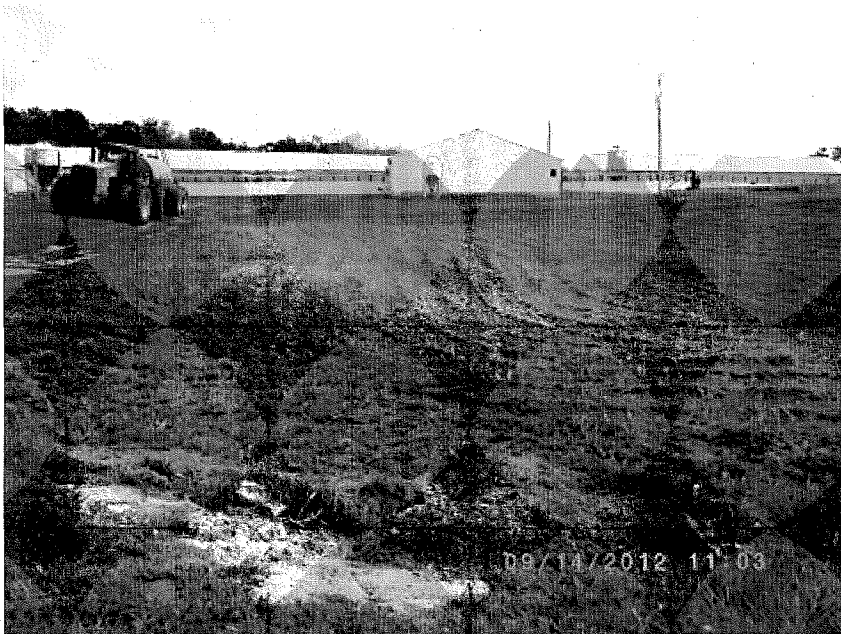
Location: Southwest of Gestation Building E

Facing: East

Date/Time: 09/14/12 11:01 A.M.



IMGP1553: Culvert for storm water under Taylor Lane.  
Location: Southwest of Gestation Building E  
Facing: West  
Date/Time: 09/14/12 11:03 A.M.



IMGP1554: Yard south of Gestation Building E.  
Location: Along Taylor Lane  
Facing: East  
Date/Time: 09/14/12 11:03 A.M.



IMGP1555: Outlet of culvert under Taylor Lane to storm water gully on west side of Taylor Lane. Gully transports flow to the intermittent unnamed tributary on the west side of the facility.

Location: Along Taylor Lane

Facing: West

Date/Time: 09/14/12 11:04 A.M.

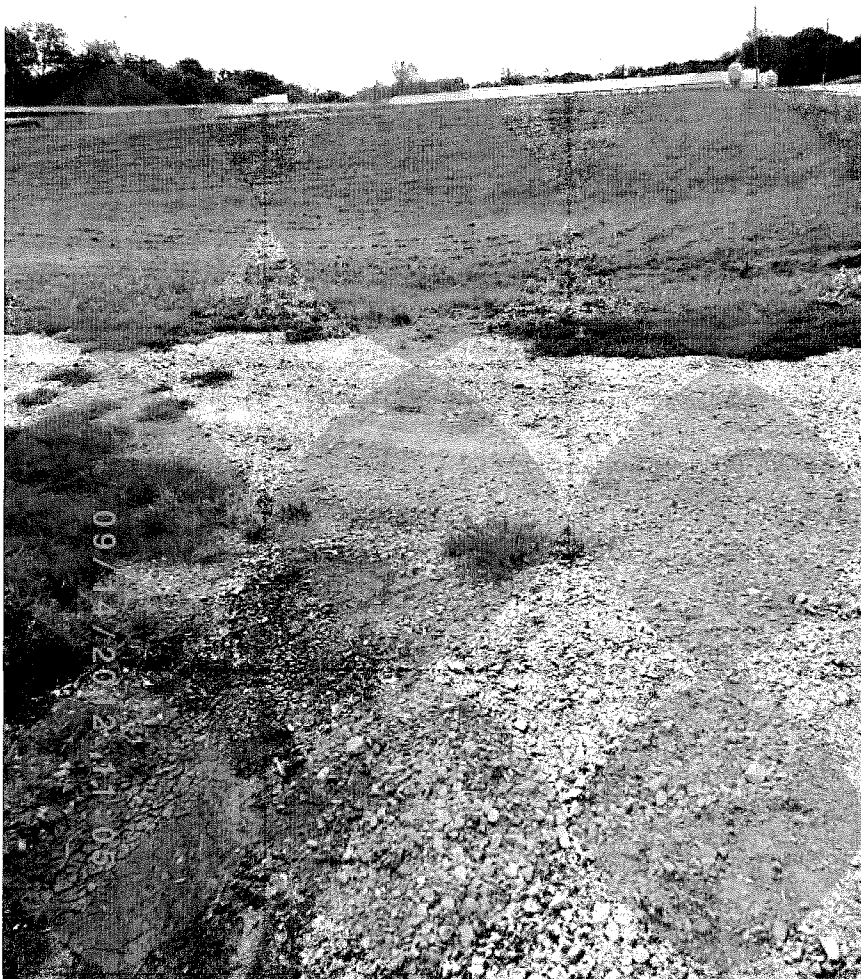


IMGP1556: Manure solids on ground near southwest corner of Gestation Building E.

Location: Southwest corner of Gestation Building E

Facing: Northeast and down

Date/Time: 09/14/12 11:04 A.M.



IMGPI557: Manure solids on the ground by Gestation Building E from a “washout” of the barn pit.

Location: Southwest corner of Gestation Building E

Facing: South

Date/Time: 09/14/12 11:05 A.M.

Feed was observed on the ground under the feed bins by the Nursery and under several other feed bins at the facility.

The ground around the North Pump Station was denuded of vegetation and manure solids remained on the ground around the pump station from when facility personnel needed to replace the broken pump. The old broken pump was still lying on the ground nearby. Storm water would be able to transport the manure solids to the storm water pathway and then to the intermittent unnamed tributary to the west via the culvert under Taylor Lane.

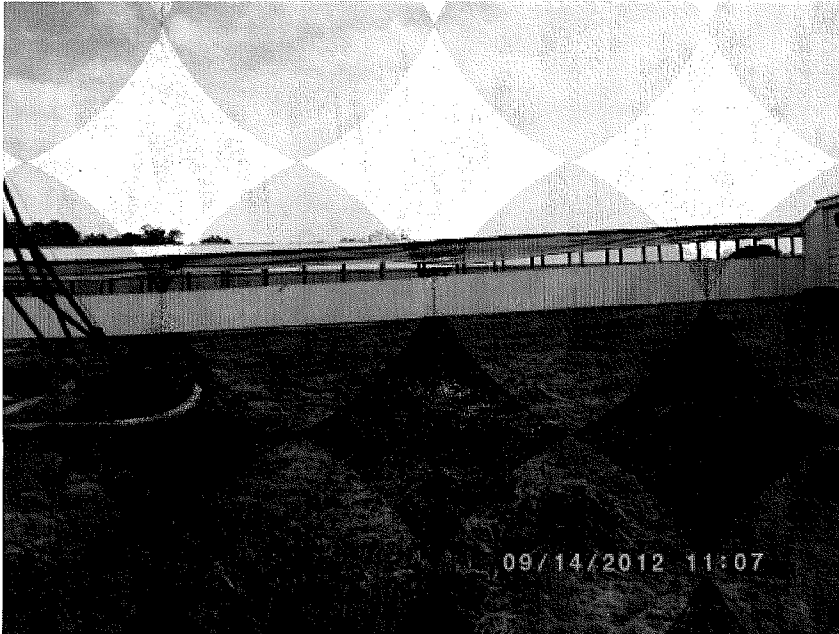


IMGP1558: Nursery Building.  
Location: In the yard northwest of Nursery Building  
Facing: Southeast  
Date/Time: 09/14/12 11:06 A.M.



IMGP1559: Nursery Building.  
Location: In the yard northwest of Nursery Building  
Facing: Southeast  
Date/Time: 09/14/12 11:07 A.M.



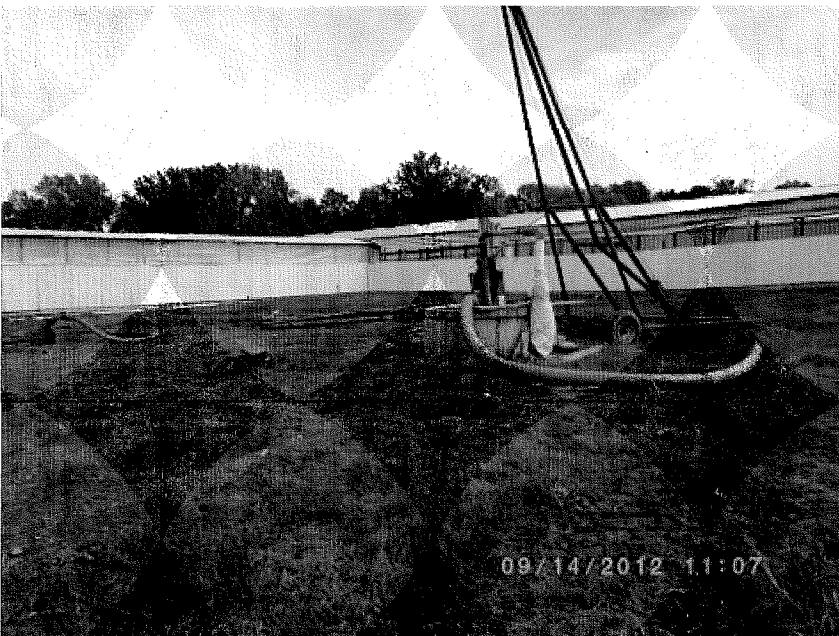


IMGP1560: Ground around the North Pump Station has denuded areas and manure solids on the ground.

Location: In the yard north of Nursery Building

Facing: East

Date/Time: 09/14/12 11:07 A.M.



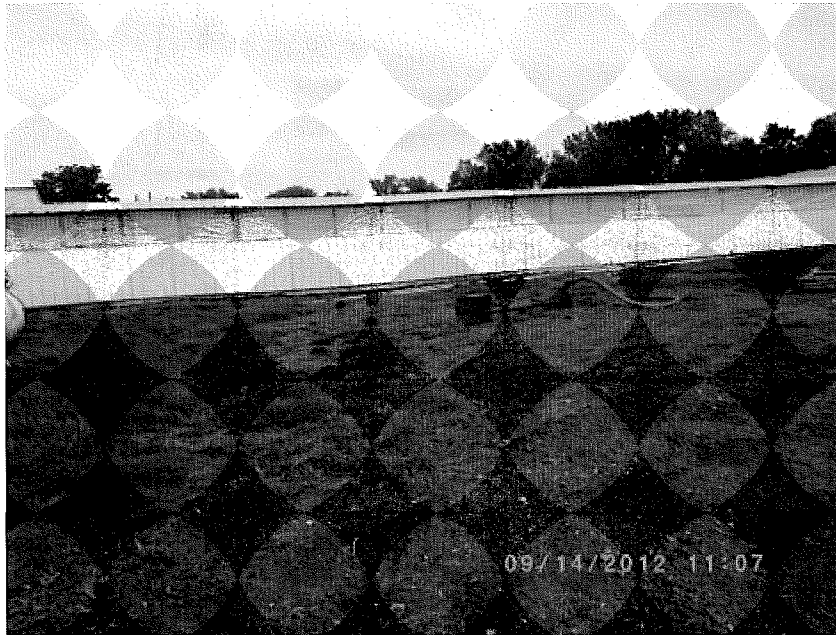
IMGP1561: North Pump Station in yard south of Gestation Building E has manure solids around it. A new pump has recently been installed. North Pump Station takes manure from north buildings and pumps it to the Concrete Pit.

Location: In the yard north of the Nursery Building

Facing: Northeast

Date/Time: 09/14/12 11:07 A.M.





IMGP1562: Culvert pipe for storm water under the north/south portion of the swine walkway conveys storm water from the east side of the walkway. Denuded area in yard around the North Pump Station and manure solids are visible on the ground.

Location: In the yard north of the Nursery Building

Facing: North

Date/Time: 09/14/12 11:07 A.M.



IMGP1563: Feed on concrete pad under feed bin.

Location: In the yard south of Gestation Building E

Facing: Northwest

Date/Time: 09/14/12 11:07 A.M.



IMGP1564: Storm water pathway in yard south of Gestation Building E passes through area of yard with manure solids around pump station.

Location: In the yard south of Gestation Building E

Facing: West

Date/Time: 09/14/12 11:07 A.M.



IMGP1565: Looking south in yard. Storm water pathway is visible in foreground.

Location: In the yard south of Gestation Building E

Facing: South

Date/Time: 09/14/12 11:08 A.M.



IMGP1566: Culvert pipe for storm water under walkway east of Gestation Buildings D and E.

Location: In the yard south of Gestation Building E

Facing: North

Date/Time: 09/14/12 11:09 A.M.



IMGP1567: Culvert pipe under walkway on the east/west portion of the swine walkway conveys flow from north of the walkway to the yard.

Location: In the yard north of the Nursery Building

Facing: Northeast

Date/Time: 09/14/12 11:10 A.M.



IMGP1568: Feed on ground under feed bin.  
 Location: In the yard west of the Nursery Building  
 Facing: South  
 Date/Time: 09/14/12 11:11 A.M.



IMGP1569: Feed on ground under feed bin.  
 Location: In the yard west of the Nursery Building  
 Facing: Northeast  
 Date/Time: 09/14/12 11:12 A.M.





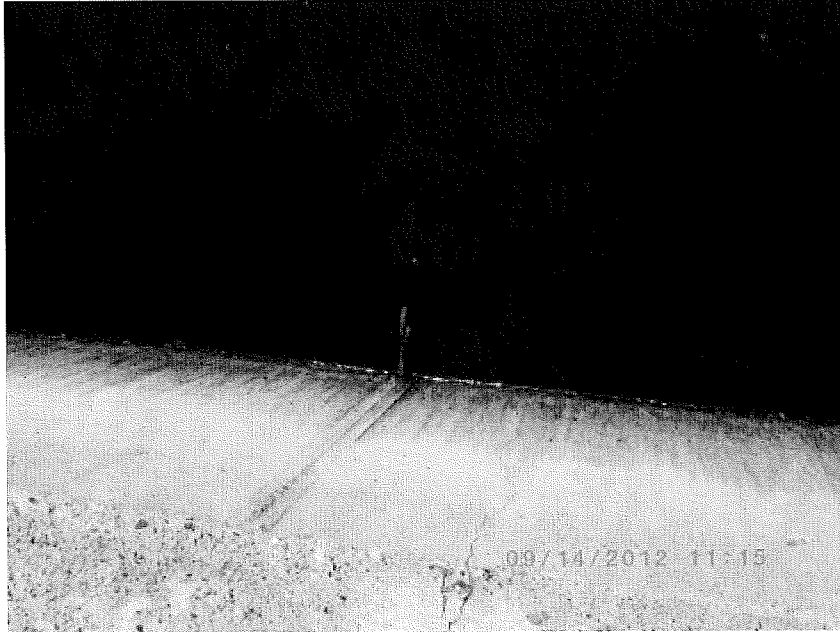
IMGP1570: Mortalities by Nursery.  
Location: In the yard west of the Nursery Building  
Facing: East  
Date/Time: 09/14/12 11:12 A.M.



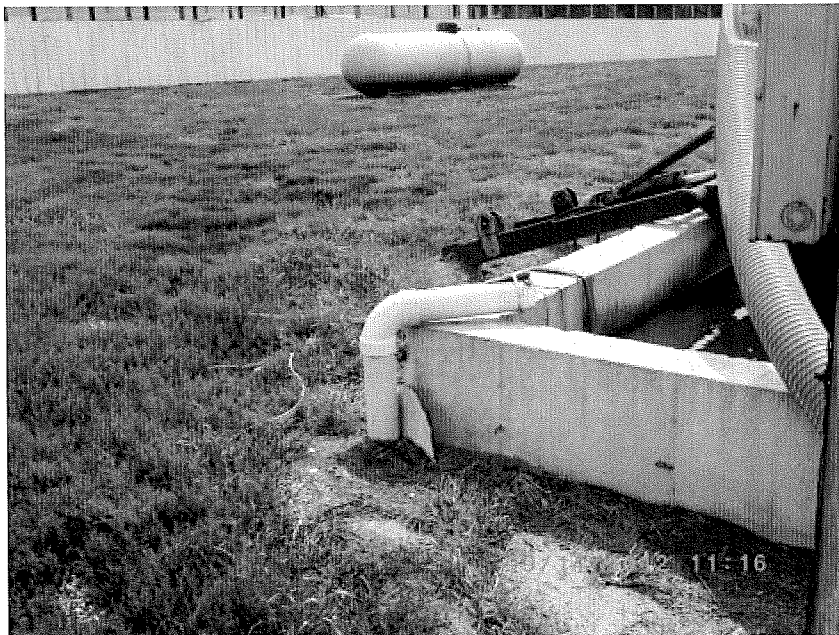
IMGP1571: North side of the Concrete Pit.  
Location: In the yard north of Concrete Pit  
Facing: South  
Date/Time: 09/14/12 11:13 A.M.



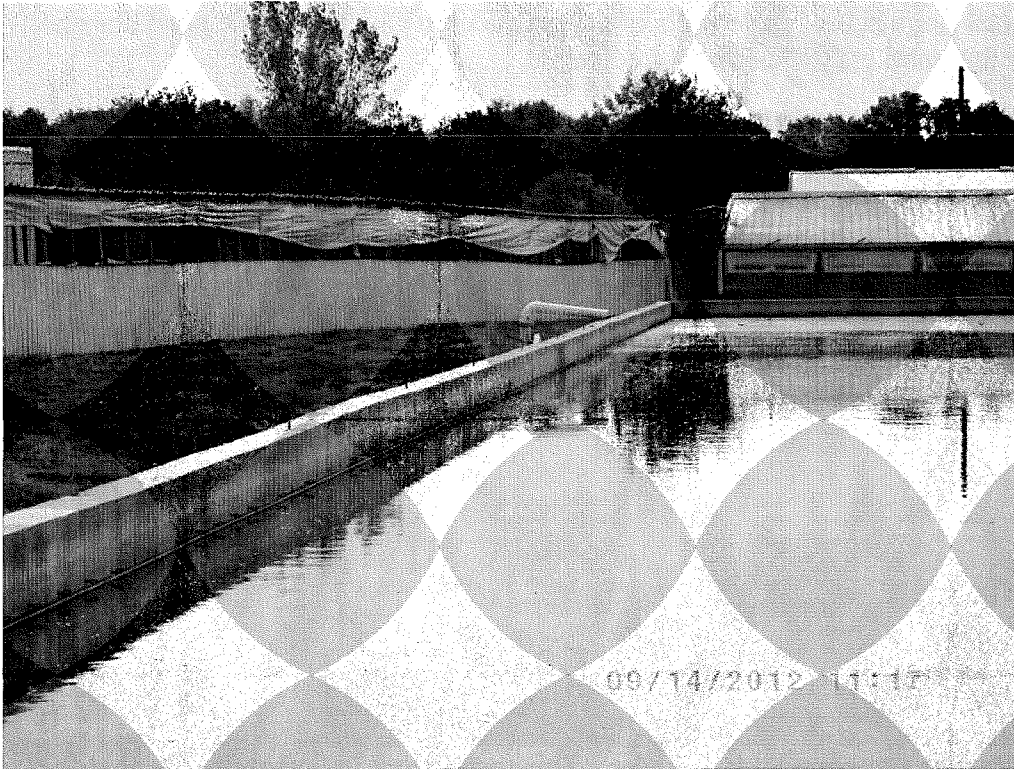
The Concrete Pit is a 13' deep rectangular concrete lined storage pond. The facility utilizes metal rings in the inside walls of the pit as depth gauges, but the pond does not have any other markers to determine freeboard.



IMGP1572: The Concrete Pit is 13' deep. This metal piece indicates the freeboard.  
Location: North side of Concrete Pit  
Facing: Down  
Date/Time: 09/14/12 11:15 A.M.

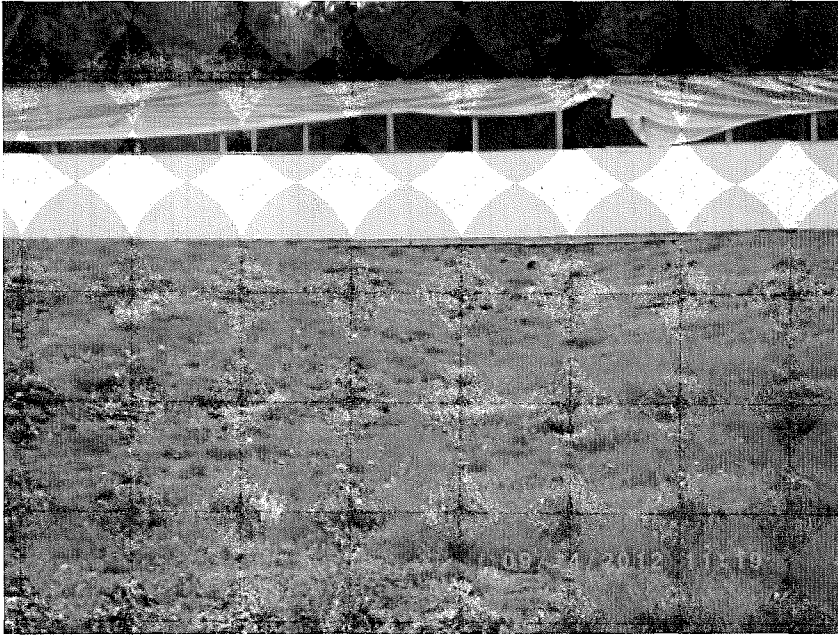


IMGP1573: Inlet pipe for manure from North Pump Station.  
Location: Northeast corner of Concrete Pit  
Facing: Southeast  
Date/Time: 09/14/12 11:16 A.M.



IMGP1574: Inlet pipe from South Pump Station to Concrete Pit. Concrete Pit is almost into the 2' of freeboard capacity.  
Location: North of Concrete Pit  
Facing: South  
Date/Time: 09/14/12 11:17 A.M.

The swine walkway continued to the south past the Nursery Building, the Concrete Pit and attached to Gestation Building G. Another culvert pipe under the swine walkway south of the Concrete Pit but north of Gestation Building G conveyed storm water from the west side of the walkway to the east.



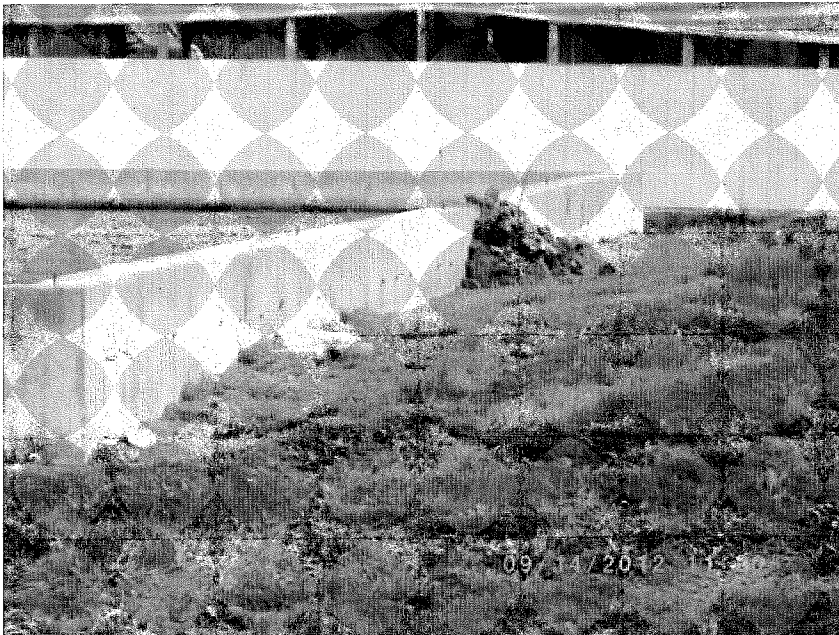
IMGP1575: Culvert pipe for storm water under walkway north of Gestation Building G.  
Location: South of Concrete Pit  
Facing: East  
Date/Time: 09/14/12 11:19 A.M.

EPA observed some dirt piled up against the south wall of the Concrete Pit. Mr. Wittig stated that he discovered cracks in the concrete wall of the pit and manure was leaking out onto the ground. According to Mr. Wittig, the dirt piled up against the wall prevented the leaking manure from flowing into the yard and being transported with storm water to the intermittent unnamed tributary of Sugar Creek.

EPA also observed the pipe which transported manure from the South Pump Station to the Concrete Pit. The manure was flowing at the time of the inspection.

A puddle of water at the northeast corner of Gestation Building G was pooled roof water. The wood wall of the building was showing signs of rotting. Mr. Wittig stated that this was not a concern as the building had a concrete wall inside the wooden wall.

Another yard south of Gestation Building G did not have any culvert pipes for storm water entering the yard. The yard had an extensive cover of vegetation on the day of the inspection.

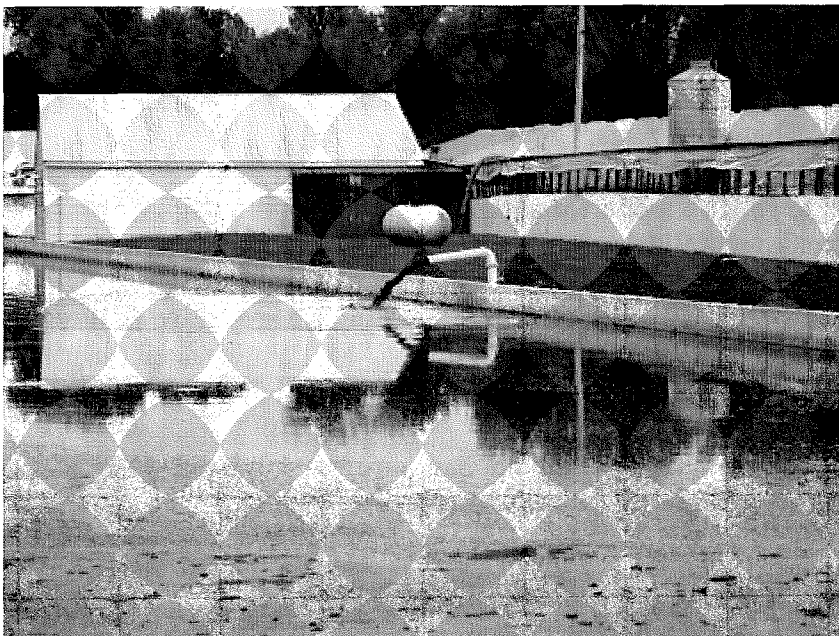


IMGP1576: Mr. Wittig stated that he piled up dirt against the wall of the Concrete Pit because of a crack in the pit's wall. Otherwise, manure leaked out onto the ground.

Location: South of Concrete Pit

Facing: Northeast

Date/Time: 09/14/12 11:20 A.M.

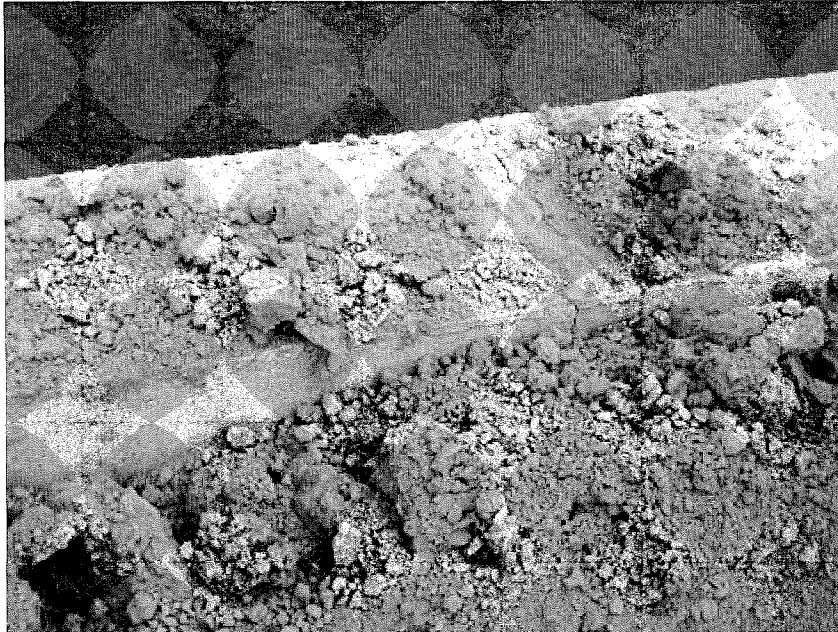


IMGP1577: Manure flowing into Concrete Pit from South Pump Station.

Location: South of Concrete Pit

Facing: North

Date/Time: 09/14/12 11:22 A.M.



IMGP1578: Crack in wall of Concrete Pit causing a manure leak from pit.  
 Location: South wall of Concrete Pit  
 Facing: Down  
 Date/Time: 09/14/12 11:22 A.M.



IMGP1579: Gestation Building G has a 2' deep pit and inner concrete wall. Downspout discharges roof storm water to ground at corner, causing wood decay.  
 Location: Northwest corner of Gestation Building G  
 Facing: Southeast  
 Date/Time: 09/14/12 11:24 A.M.





IMGP1580: Yard on west side of walkway south of Gestation Building G.  
Location: South of Gestation Building G  
Facing: East  
Date/Time: 09/14/12 11:26 A.M.



IMGP1581: Yard on west side of walkway south of Gestation Building G.  
Location: South of Gestation Building G  
Facing: Southeast  
Date/Time: 09/14/12 11:26 A.M.





IMGP1582: Yard on west side of walkway south of Gestation Building G.

Location: South of Gestation Building G

Facing: South

Date/Time: 09/14/12 11:26 A.M.

Gestation Buildings J and K and the South Farrowing Building had cooling cells attached to the windows of the building. The cooling cells forced the outside air to flow through water and the process of evaporation cooled the air before it entered the barn. A leak in the water line allows clean water to pool on the ground beneath the cells. The water has channelized and flows to the west toward a crop field.

EPA noted a small amount of spilled feed beneath the bulk bins on the west side of Gestation Building J. Another pathway for leaking cooling cell water was also observed to flow toward the west from the southwest corner of the South Farrowing Building toward the crop field.



IMGP1583: Cooling cells leak water onto the ground underneath the units.  
Location: Northwest corner of Gestation Building J  
Facing: East  
Date/Time: 09/14/12 11:27 A.M.



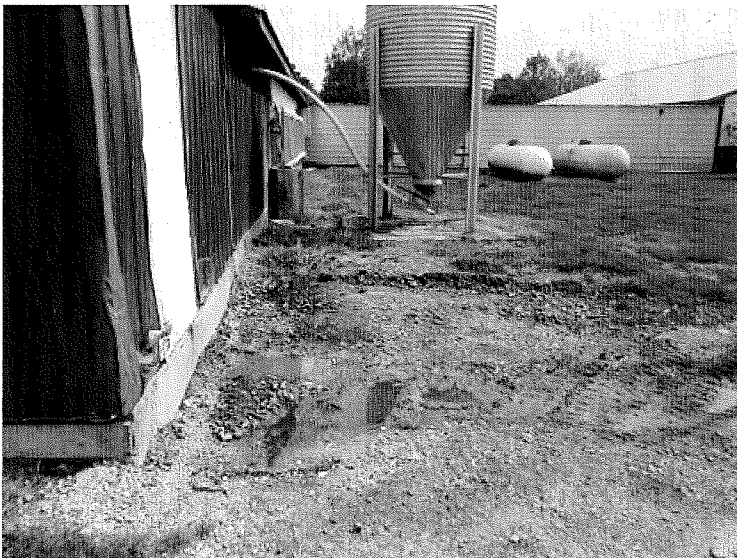
IMGP1584: Storm water pathway from the northwest corner of Gestation Building J to the crop field to the west. Water in pathway is from cooling cells for the barn.  
 Location: Northwest corner of Gestation Building J  
 Facing: West  
 Date/Time: 09/14/12 11:27 A.M.



IMGP1585: Small amount of feed spilled on the ground under feed bulk bins on the west side of Gestation Building J.  
 Location: West of Gestation Building J  
 Facing: Southeast  
 Date/Time: 09/14/12 11:29 A.M.



IMGP1586: Water on ground from cooling cells for Gestation Building K.  
 Location: Northwest corner of Gestation Building K  
 Facing: East  
 Date/Time: 09/14/12 11:30 A.M.



IMGP1587: Bulk bin and puddle of water on south side of South Farrowing Building.  
 Location: Southwest corner of South Farrowing Building  
 Facing: East  
 Date/Time: 09/14/12 11:34 A.M.



IMGP1588: Storm water pathway leading from the South Farrowing Building to the crop field to the west. Water in pathway is from cooling cell water which leaks onto the ground.

Location: Southwest of South Farrowing Building

Facing: West

Date/Time: 09/14/12 11:34 A.M.

The South Gestation Building is the barn that is the furthest south at the facility. Just to the southwest of the South Gestation Building, EPA observed the South Compost Unit which had two bays. A pile of raw material of chopped trees and mulch was north of the South Compost Unit. EPA noted bones and exposed animal carcasses in the compost bins and the bones of the dead animals on the ground around the South Compost Unit.

An earthen manure storage pond was just to the south of the South Gestation Building. The facility calls this the Emergency Pond because it is only used as a manure holding pond in emergencies. A valve near the northeast corner of the pond allows the facility to direct the flow of manure to the Emergency Pond or to allow for the water in the pond to be used to flush or add water to the pits under the southern barn buildings.



IMGP1589: Raw material for composting is in the pile next to South Compost Unit.  
 Raw material is chopped trees and mulch.  
 Location: South Compost Unit  
 Facing: South  
 Date/Time: 09/14/12 11:36 A.M.



IMGP1590: South Compost Unit has two bays. One was empty. EPA noted bones on the ground and exposed animal carcasses in the compost bins.  
 Location: South Compost Unit  
 Facing: Southeast  
 Date/Time: 09/14/12 11:38 A.M.





IMGP1591: Emergency Pond is used for emergency storage. It is not lined but was dug into clay. There was approximately 4' of freeboard in the pond on the day of the inspection. The berm vegetation was at a reasonable height and there was no woody growth in the berms. There was no depth gauge in the Emergency Pond.

Location: Emergency Pond

Facing: South

Date/Time: 09/14/12 11:40 A.M.



IMGP1592: EPA noted bones on the ground and exposed animal carcasses in the South Compost Unit. Some of the compost was spilled over the back wall of the unit.

Location: South Compost Unit

Facing: West

Date/Time: 09/14/12 11:42 A.M.



IMGP1593: The valve that can be utilized to allow flow from the southern barns to flow to the Emergency Pond. The facility also can use the water from the pond to be used to flush or add water to the pits below the southern barns.

Location: North of Emergency Pond

Facing: East

Date/Time: 09/14/12 11:47 A.M.

A storm water gully in the hillside to the east allowed storm water to flow to the intermittent unnamed tributary of Sugar Creek to the east.



IMGPI594: Storm water gully to the hillside to the east.

Location: East of Emergency Pond

Facing: East

Date/Time: 09/14/12 11:50 A.M.

EPA began walking north along the east side of the facility. EPA noticed that there was dirt mounded up along the north wall of the South Gestation Building near its northeast corner. Mr. Wittig stated that during the installation of the pit fan housing, cracks in the pit walls of the pit had developed. The dirt was used to prevent the manure from leaking out onto the ground.

On the east side of Gestation Buildings J and K, a hole had been dug into the ground to expose the manure piping. Mr. Wittig stated that while removing a plug in one of the manure pipes, they had inadvertently broken the pipe. The facility was in the process of repairing the broken piping. Although there was manure in the bottom of the hole, EPA did not observe any evidence that the manure had discharged to the ground around the hole.

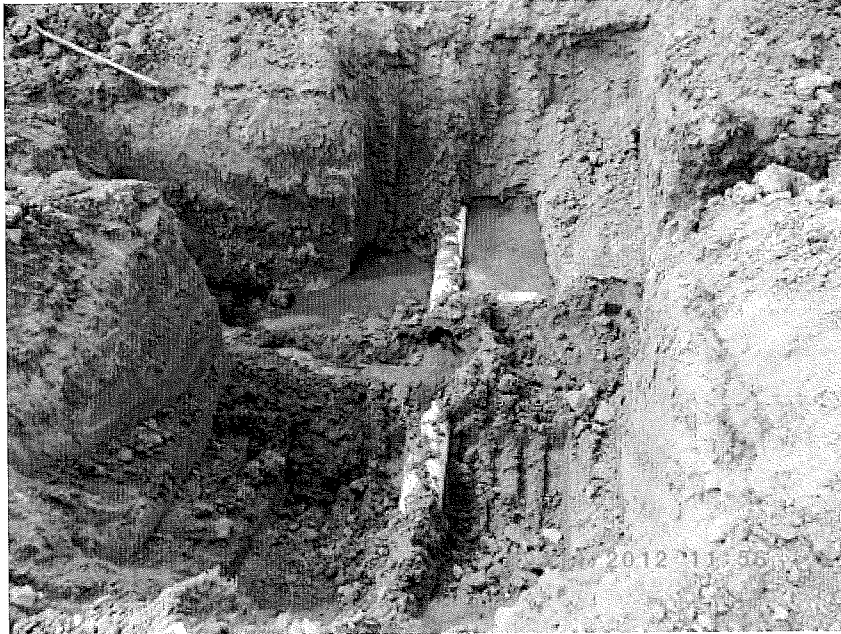
EPA also inspected the South Pump Station which was located just to the east of Gestation Building J.



IMGP1595: Barn fans for South Gestation Building.  
 Location: East of South Gestation Building  
 Facing: South  
 Date/Time: 09/14/12 11:51 A.M.



IMGP1596: Dirt mounded up along building is where there are cracks in the concrete that occurred when the pit fan housing was installed.  
 Location: Northeast corner of South Gestation Building  
 Facing: West  
 Date/Time: 09/14/12 11:54 A.M.



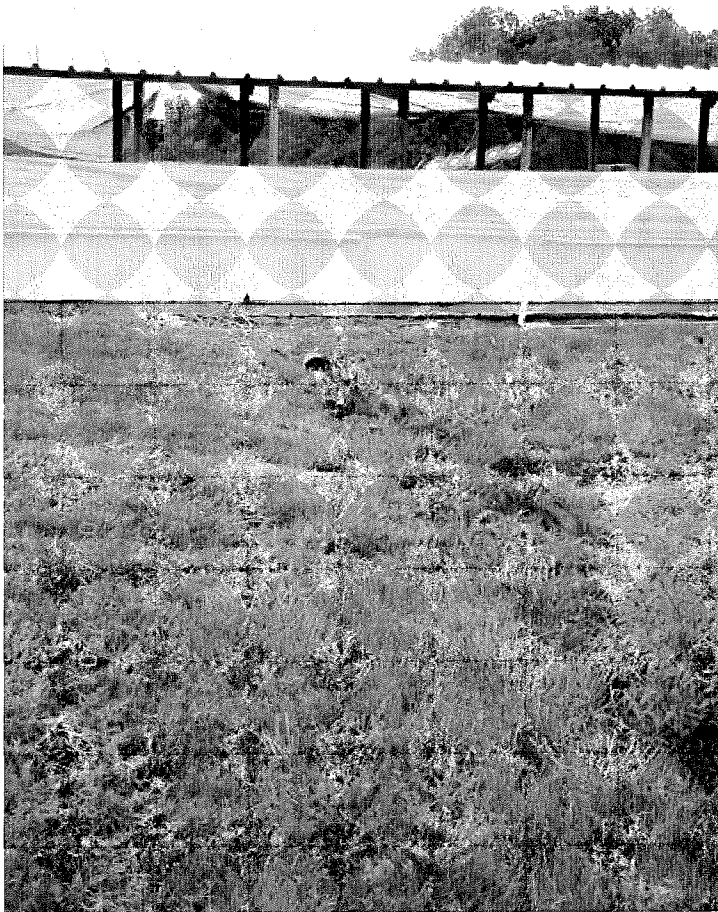
IMGP1597: Broken manure pipe between Gestation Building J and K.  
Location: East of Gestation Building J and K  
Facing: Down  
Date/Time: 09/14/12 11:56 A.M.



IMGP1598: South Pump Station is east of Gestation Building J.  
Location: East of Gestation Building J  
Facing: West  
Date/Time: 09/14/12 12:00 P.M.



On the east side of the swine walkway north of Gestation Building G, EPA observed the storm water culvert pipe that directed storm water from the west to the east. Any manure that would leak from the crack in the walls of the Concrete Pit could flow with storm water through this culvert pipe to the hillside to the east and then to the intermittent unnamed tributary of Sugar Creek.



IMGP1599: Storm water culvert pipe under walkway east of the Concrete Pit. Storm water flows to the east

Location: Northeast of Gestation Building G

Facing: West

Date/Time: 09/14/12 12:02 P.M.

Continuing along the east side of the facility, EPA observed the addition to Gestation Building A. This new addition, built in 2011, to the building has a 10' pit beneath it which is pumped out and taken directly to the fields for land application.



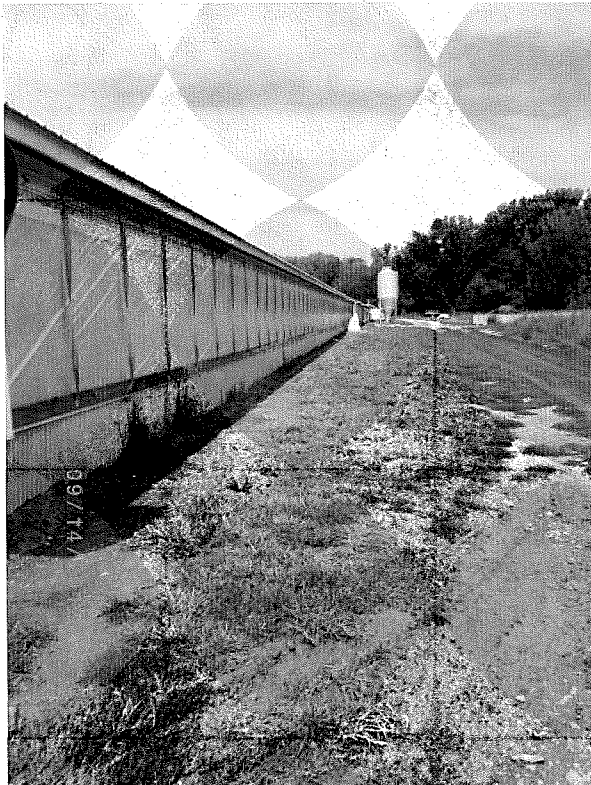


IMGP1600: Gestation Building A has been extended to the south. Gestation Building F is in background.

Location: Southeast corner of Gestation Building A

Facing: West

Date/Time: 09/14/12 12:05 P.M.



IMGP1601: Looking north along east wall of Gestation Building A.

Location: Southeast corner of Gestation Building A

Facing: North

Date/Time: 09/14/12 12:05 P.M.

A perimeter tile drain was installed with the addition to Gestation Building A. The tile drained to the hillside to the east of Gestation Building G. EPA observed the perimeter tile drain outlet. It was not flowing and Mr. Wittig stated that due to the drought in the region, there has not been any flow from the drain tile in quite a while. The facility is required to sample the discharge (when flowing) on a quarterly basis and send the results to the Illinois Department of Agriculture. Mr. Wittig stated that the facility has been taking the required samples.



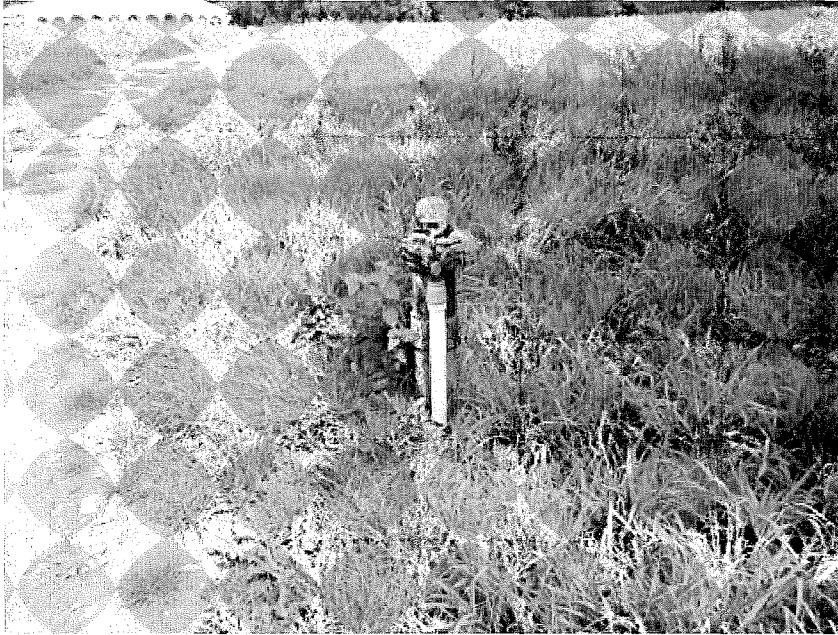
IMGP1602: Perimeter tile drain outlet in hillside east of Gestation Building G. Facility samples the discharge from the perimeter tile on a quarterly basis and the results are sent to the Illinois Department of Agriculture. Due to the drought in the region, there has not been any flow from the drain tile.

Location: East of Gestation Building G

Facing: Down

Date/Time: 09/14/12 12:09 P.M.

Mr. Wittig pointed out a wellhead for a 1200' well which was unusable because the well dried up due to the drought. A new, deeper well had to be dug to provide water for the animals.

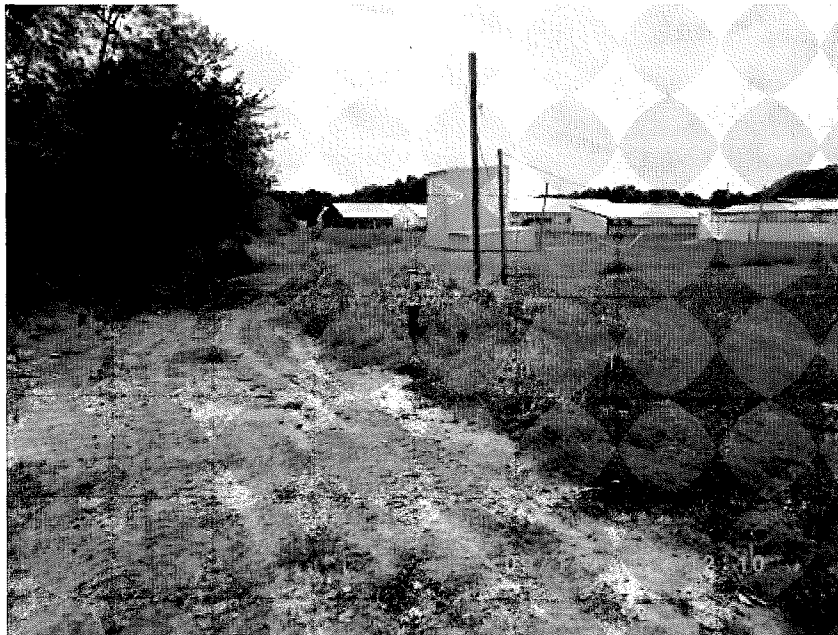


IMGP1603: Wellhead for a 1200' well which is unusable because it has dried up due to the drought.

Location: East of Gestation Building G

Facing: North

Date/Time: 09/14/12 12:10 P.M.



IMGP1604: Wellheads for wells for water for the facility.

Location: East of Gestation Building G

Facing: South

Date/Time: 09/14/12 12:10 P.M.

East of Gestation Building A is the North Compost Unit. This composting unit contains three bins that are open to the west and two bins that are open to the east. The mortalities were better covered in these bins compared to the condition of the South Compost Unit, but the east side bins contained mortality leachate where an abundance of flies were breeding. EPA also observed bones around the composting unit.

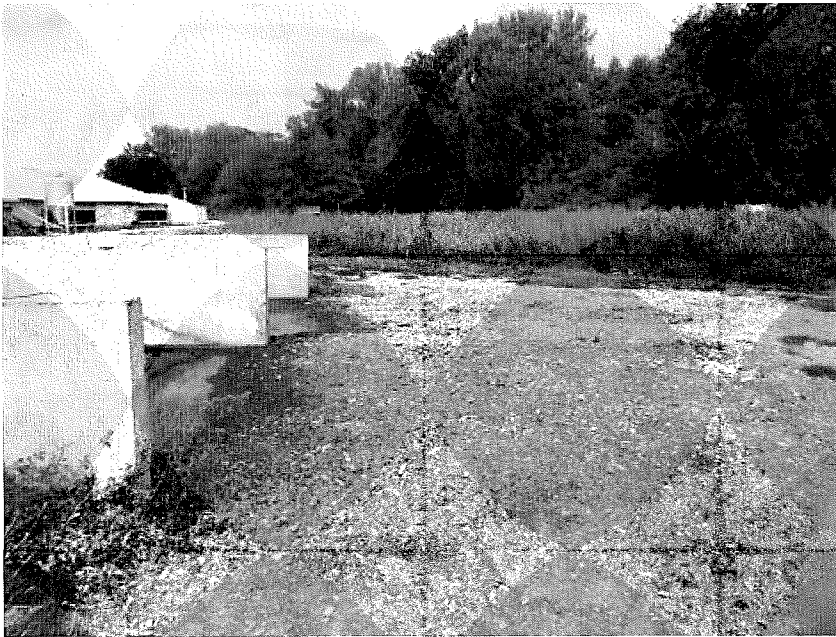


IMGP1605: West side bins of the North Compost Unit. Composting carcasses were covered better than in the South Compost Unit.

Location: North Compost Unit

Facing: East

Date/Time: 09/14/12 12:13 P.M.

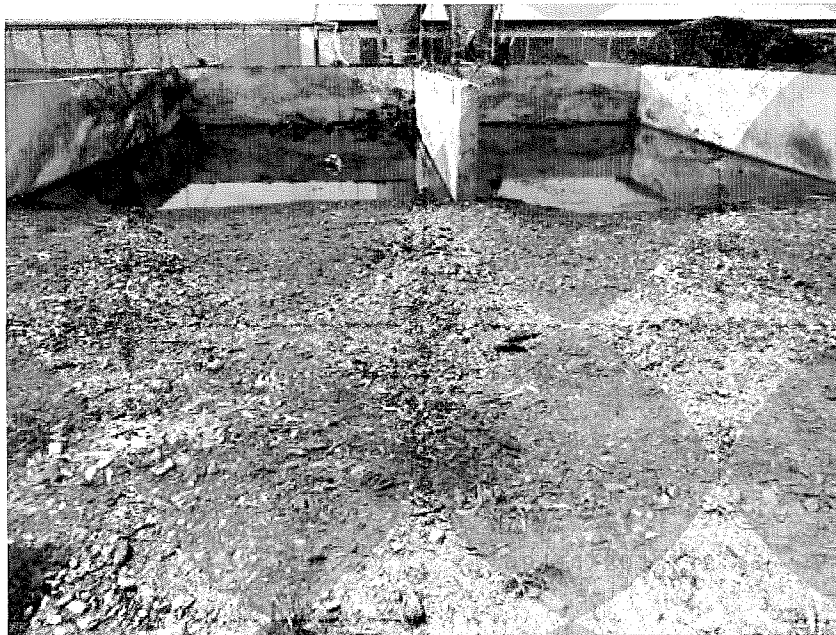


IMGP1606: East side bins of the North Compost Unit.

Location: North Compost Unit

Facing: North

Date/Time: 09/14/12 12:14 P.M.



IMGP1607: Standing liquid in east bins of the North Compost Unit was process wastewater from decomposing animals and storm water. A large number of flies were breeding in the standing water.

Location: North Compost Unit

Facing: West

Date/Time: 09/14/12 12:15 P.M.



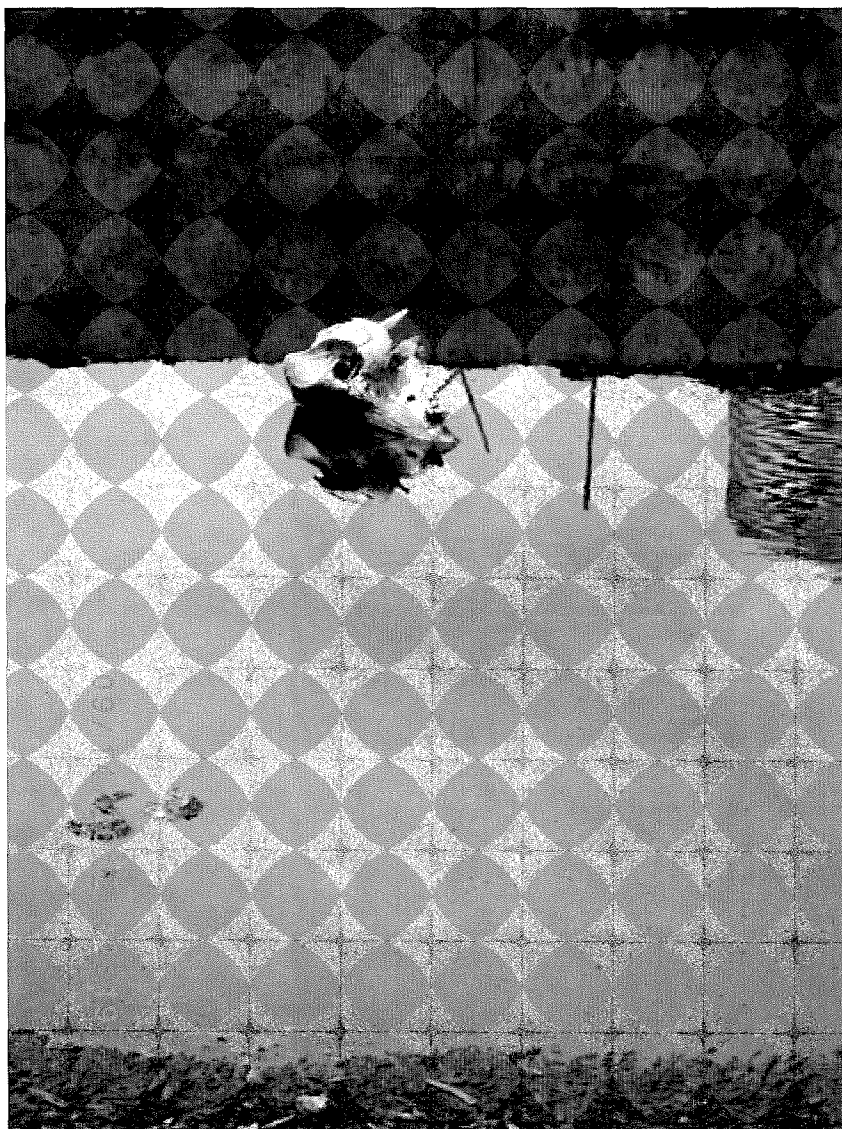


IMGP1608: Animal bones on the ground around the North Compost Unit.  
Location: North Compost Unit  
Facing: South  
Date/Time: 09/14/12 12:16 P.M.



IMGP1609: Animal bones on the ground around the North Compost Unit.  
Location: North Compost Unit  
Facing: South and down  
Date/Time: 09/14/12 12:16 P.M.





IMGP1610: Skull from mortality in standing liquid in east bins of the North Compost Unit.

Location: North Compost Unit

Facing: West

Date/Time: 09/14/12 12:19 P.M.

A round cistern near the northeast corner of Gestation Building A was the location for an underground tank used to store drinking water.

At the office building for the facility, Mr. Wittig stated that the shower in the office for the employees to use to shower in and out of the facility discharged the shower water for the numerous showers to the Concrete Pit.

A Concrete Manure Pit on the northeast side of the Office Building stood unused. This pit still had manure and process wastewater in it. It previously was used to contain manure for the building that is now used as an office, when the building was used to

maintain animals. This building did not have a pit beneath it so this Concrete Manure Pit was built.

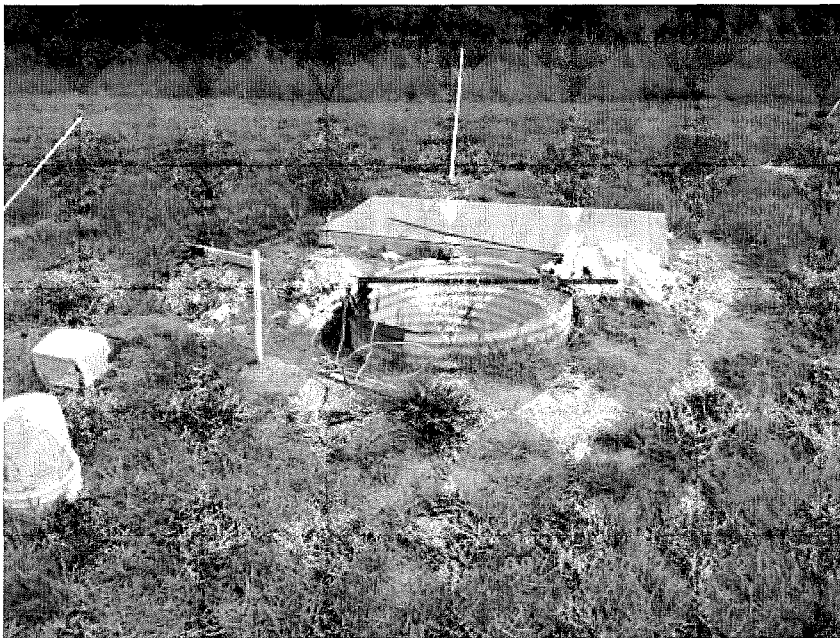


IMGP1611: An underground tank for drinking water.

Location: Northeast of Gestation Building A

Facing: Down

Date/Time: 09/14/12 12:21 P.M.

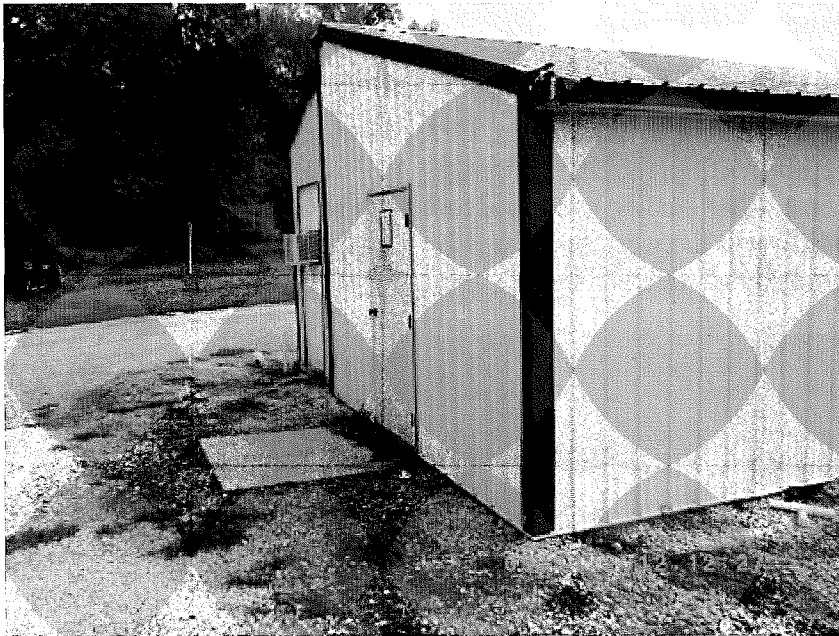


IMGP1612: An underground tank for drinking water.

Location: Northeast of Gestation Building A

Facing: Northeast

Date/Time: 09/14/12 12:21 P.M.



IMGP1613: Office building for the facility. A shower in the office discharges shower water to the Concrete Pit.

Location: North side of facility

Facing: East

Date/Time: 09/14/12 12:27 P.M.



IMGP1614: An unused Concrete Manure Pit on the northeast side of the Office Building still has manure and process wastewater in it.

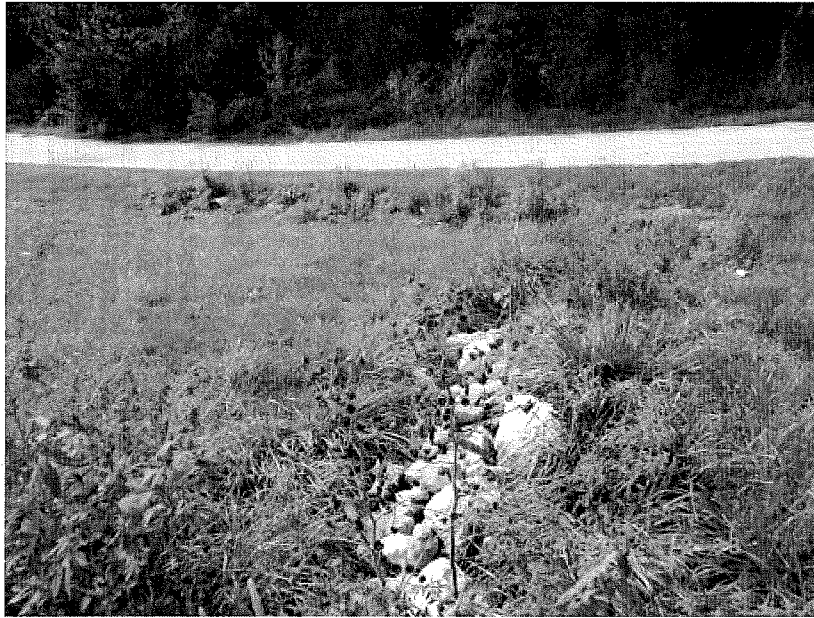
Location: Northeast of Office Building

Facing: Southeast

Date/Time: 09/14/12 12:28 P.M.

IMGP1615: Photo is corrupted.  
Date/Time: 09/14/12 12:30 P.M.

After providing a closing conference to Mr. Wittig, EPA observed the storm water channel in the yard to the north of the facility buildings. A tile drain pipe had its outlet in the yard east of Taylor Lane. The facility had place rocks in the channel below the drain. Flow from this tile would flow to the west and to a culvert under Taylor Lane. There was no flow from the tile on the day of the inspection.



IMGP1616: Storm water channel north of the facility leads to a culvert under Taylor Lane.

Location: Along Taylor Lane north of facility

Facing: West

Date/Time: 09/14/12 12:33 P.M.



IMGP1617: Outlet for storm water pipe in yard on north side of facility.

Location: In yard north of facility

Facing: Down

Date/Time: 09/14/12 12:34 P.M.

No samples were taken and EPA exited the facility at 1:51 P.M.

#### **Closing Conference and Post-Inspection**

<b>Were specific "Areas of Concern" discussed with facility personnel?</b>	All the areas of concern were discussed with Mr. Wittig except the addition of shower water to the manure storage system.
<b>Compliance assistance materials given to facility personnel:</b>	None
<b>Disposable Boots Left at Facility?</b>	Yes
<b>Vehicle Washed after leaving facility?</b>	Yes
<b>Date and Time that vehicle was washed:</b>	September 14, 2012 at approximately 7:00 P.M.

#### **AREA OF CONCERN**

EPA observed this area of concern whereby pollutants have the potential to reach waters of the United States:

1. Manure solids from the ground at the southwest corner of Gestation Building E could flow with storm water to west to the culvert under Taylor Lane and then to the intermittent unnamed tributary of Sugar Creek.

2. Manure solids from the ground around the North Pump Station could flow with the storm water to west to the culvert under Taylor Lane and then to the intermittent unnamed tributary of Sugar Creek.
3. Manure leaking from the Concrete Pit could flow with storm water to the east and through the culvert pipe under the swine walkway and to the intermittent unnamed tributary of Sugar Creek.
4. The crack in the concrete wall of the Concrete Pit should be repaired.
5. The mortalities in the South Compost Unit are not properly maintained and are exposed and being scavenged.
6. The cracks in the concrete walls of the South Gestation Building should be repaired to prevent manure from leaking from the pit below the building.
7. The presence of bones from mortalities around the North Compost Unit is evidence that the mortalities are not properly covered with composting material.
8. The mortality leachate in the east bins of the North Compost Unit should be removed and land applied to prevent the breeding of insects which spread disease.
9. The water from employees' showers should not enter the manure storage system.

#### **LIST OF ATTACHMENTS**

- A) Aerial photograph of the Hollis Shafer Swine Farm with buildings, waterways and discharge pathways labeled.



Hollis Shafer Swine Farm  
785 N Taylor Lane  
Astoria, IL 61501  
Fulton County

Attachment A

